STIC Search Report
EIC 3700

STIC Database Tracking Number: 131021

TO: Chanda Harris
Location: CP2 10E02 OR 10D10
Art Unit: 3714

Case Serial Number: 10/686198

From: Jeanne Horrigan
Location: EIC 3700
CP2-2C08
Phone: 305-5934

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Search Notes

Attached are the search results for the automated collaborative
filtering system, including prior art searches in foreign and
international patent databases; electronics, psychology, computers, and
general sci/tech non-patent literature databases; and the Web via the
Google and Scirus search engines.

**I tagged the results that seemed to me to be most relevant, but I
recommend that you review all of the results.**

Also attached is a search feedback form. Completion of the form is
voluntary. Your completing this form would help us improve our search
services.

I hope the attached information is useful. Please feel free to contact
me (phone 305-5934 or email jeanne.horrigan@uspto.gov) if you have any
questions or need additional searching on this application.

STIC Search Results
Feedback Form

EIC 3700

Questions about the scope or the results of the search? Contact **the EIC searcher or contact**:

John Sims, EIC 3700 Team Leader
308-4836, CP2-2C08

Voluntary Results Feedback Form

➤ *I am an examiner in Workgroup:* [   ]   *Example: 3730*

➤ *Relevant prior art **found**, search results used as follows:*

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art **not found:***

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

sira
Search and Information
Resources Administration

Access DB# 131021

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Chanda L. Harris   Examiner # : 77264   Date: 8/27/04

Art Unit: 3714   Phone Number 308-8358   Serial Number: 10/686,198

Mail Box and Bldg/Room Location: CP 210 E02/   Results Format Preferred (circle): (PAPER) DISK E-MAIL
CP 210 D10

If more than one search is submitted, please prioritize searches in order of need.
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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Methods and Apparatus for Predicting and Selectively Collecting Preferences Based on Personality diagnosis

Inventors (please provide full names): Eric J. Horvitz , David M. Pennock

Earliest Priority Filing Date: 7/31/00

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

child of US 6,455,963 (09/629,217)

Claims 25, 48, 58.

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Collaborative Filtering by Personality Diagnosis: A Hybrid Memory- and Model-Based Approach

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Access postscript or pdf file.

Abstract:

The growth of Internet commerce has stimulated the use of collaborative filtering (CF) algorithms as recommender systems. Such systems leverage knowledge about the known preferences of multiple users to recommend items of interest to other users. CF methods have been harnessed to make recommendations about such items as web pages, movies, books, and toys. Researchers have proposed many approaches for generating recommendations. We describe and evaluate a new method called personality diagnosis (PD). Given a user's preferences for some items, we compute the probability that he or she is of the same "personality type" as other users, and, in turn, the probability that he or she will like new items. PD retains some of the advantages of traditional similarity-weighting CF approaches in that all data is brought to bear on each prediction and new data can be added easily and incrementally. Additionally, PD has a meaningful probabilistic interpretation, which may be leveraged to justify, explain, and augment results. We show empirically that PD provides better predictions that all four of the algorithms tested by Breese et al. [1998] on the EachMovie database of movie ratings. The probabilistic framework naturally supports a variety of descriptive measurements---in particular, we briefly consider the applicability of a value of information (VOI) computation.

Keywords: Recommender systems, collaborative filtering, agents, diagnosis of preferences, probability, decision theory.

Analysis of the Axiomatic Foundations of Collaborative Filtering

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The growth of Internet commerce has stimulated the use of collaborative filtering (CF) algorithms as recommender systems. Such systems leverage knowledge about the behavior of multiple users to recommend items of interest to individual users. CF methods have been harnessed to make recommendations about such items as web pages, movies, books, and toys. Researchers have proposed several variations of the technology. We take the perspective of CF as a methodology for combining preferences. The preferences predicted for the end user is some function of all of the known preferences for everyone in a database. Social Choice theorists, concerned with the properties of voting methods, have been investigating preference aggregation for decades. At the heart of this body of work is Arrow's result demonstrating the impossibility of combining preferences in a way that satisfies several desirable and innocuous-looking properties. We show that researchers working on CF algorithms often make similar assumptions. We elucidate these assumptions and extend results from Social Choice theory to CF methods. We show that only very restrictive CF functions are consistent with desirable aggregation properties. Finally, we discuss practical implications of these results.

Keywords: Recommender systems, collaborative filtering, agents, Arrow's impossibility theorem, preferences, probability, decision theory.

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Eric Horvitz: Online papers and abstracts

Online publications

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Send email for access to the full papers for the listed abstracts or to more recent papers: horvitz@microsoft.com.

Back to Eric Horvitz's home page.

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presented by David M. Pennock and Michael P. Wellman
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Education

Ph.D. Computer Science   UNIVERSITY OF MICHIGAN, ANN ARBOR, MI, DEC 1999

Intelligent Systems concentration, with Graduate Certificate in Complex Systems
Dissertation: "Aggregating Probabilistic Beliefs: Market Mechanisms and Graphical Representations"

M.S. Computer Science   DUKE UNIVERSITY, DURHAM, NC, AUG 1994

Masters thesis: "Learning in a Neural Network with Fractal Topology for Image Compression"

B.S. Physics   DUKE UNIVERSITY, DURHAM, NC, MAY 1993

Second Major: Computer Science

Research Interests

– Analysis of new electronic and Web markets
– Design of new markets according to both computational and economic objectives
– Development of software tools and agents to facilitate and automate trade and negotiation
Topics: electronic commerce, artificial intelligence, recommender systems, Internet analysis, information retreival, decision theory, uncertain reasoning, decentralized coordination

Honors

Fellowship, Michigan Decision Behavior Consortium, January 1998
Best Student Paper Finalist, Decision Analysis Society of the Institute for Operations Research and the Management Sciences, 1998
Graduated magna cum laude, 1993
Dean's List, 1989–1993
Golden Key National Honors Society, 1991
Phi Eta Sigma Freshman Honors Society, 1990

Activities

Santa Fe Institute Complex Systems Summer School, June 1996
Duke in Cambridge Program in England, Summer 1992
Pi Kappa Alpha Fraternity, 1990–1993; Community Service Chair, 1991–1992

Highlights

Currently a Research Scientist at Overture Services, Inc.
Adjunct Assistant Professor at Pennsylvania State University
33 journal and conference publications (including *PNAS, Science, IEEE Computer*, AAAI, EC, WWW, KDD, UAI, SIGIR, ICML, NIPS, SAINT, INFOCOM, and ACM SIGCSE)
1 patent; over 20 presentations
Press interviews include New York Times, Washington Post, Dow Jones/Wall Street Journal, Investors Business Daily, LA Business Journal, Discover Magazine, and others
Press reports covering my research have appeared in Discover Magazine, New Scientist, CNN/Money, New York Times, E! Online, Beyond 2000, Tech TV, and other media in the US and abroad

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J. Fiegenbaum, L. Fortnow, D.M. Pennock, and R.Sami (2003). **Computation in a distributed information market.** *ACM Conference on Electronic Commerce*
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AT&T Labs Research, Florham Park, NJ, May 1999

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IBM Research, Yorktown Heights, NY, March 1999

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Institute for Operations Research and the Management Sciences National Meeting, Montréal, Canada, April 1998

Patents

Methods and apparatus for predicting attribute values based on a personality diagnosis, pending, with E. Horvitz, *Microsoft Corporation*

Professional Experience

Senior Research Scientist   OVERTURE SERVICES, INC., NOV 2002 TO PRESENT

Conducting research on information markets, auctions, electronic commerce, and artificial intelligence. Developing creative and innovative technologies that help position Overture as a leader in Internet e-commerce and related scientific endeavors

Research Scientist
NEC RESEARCH INSTITUTE, PRINCETON, NJ, OCT 1999 TO OCT 2002

Conducted research on information markets, Web games, recommender systems, Web hyperlinks, social networks, consensus Bayesian networks, and ensemble learning algorithms

Adjunct Assistant Professor of Computer Science and Engineering
PENNSYLVANIA STATE UNIV., STATE COLLEGE, PA, JUN 2001 TO PRESENT

Taught CSE 597B, Computational aspects of ecommerce

Research Intern MICROSOFT RESEARCH, REDMOND, WA, JUN 1998 TO AUG 1998

Conducted research on impossibility theorems in group coordination, recommender systems, and Bayesian networks

Research Assistant
UNIVERSITY OF MICHIGAN, ANN ARBOR, MI, SEP 1995 TO MAY 1999

Conducted research on computationally efficient and decentralized mechanisms for aggregating information using markets

Teaching Assistant
UNIVERSITY OF MICHIGAN, ANN ARBOR, MI, SEP 1994 TO DEC 1994

Taught CS 380: Data Structures and Algorithms

Research Assistant   DUKE UNIVERSITY, DURHAM, NC, SEP 1993 TO AUG 1994

```
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200455
File 347:JAPIO Nov 1976-2004/Apr(Updated 040802)
File 348:EUROPEAN PATENTS 1978-2004/Aug W03
File 349:PCT FULLTEXT 1979-2002/UB=20040826,UT=20040819
Set      Items    Description
S1          94    AU='HORVITZ E' OR AU='HORVITZ E J' OR AU='HORVITZ ERIC' OR
                  AU='HORVITZ ERIC J'
S2           4    AU='PENNOCK D M' OR AU='PENNOCK DAVID'
S3           2    S1 AND S2
S4       84091    PERSONALITY OR COLLABORATIVE()FILTER? OR RECOMMEND?
S5         354    COLLABORATIVE()(FILTERING OR FILTERS)
S6           3    (S1:S2 AND S4:S5) NOT S3
```

3/34/1   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
016182105   **Image available**
WPI Acc No: 2004-339992/200431
   Attribute value e.g. persons preferences predicting method, involves
   generating probability that active entitys true personality type is that
   of current other entity using personality type generation process
Patent Assignee: HORVITZ E J (HORV-I); PENNOCK D M (PENN-I)
Inventor: **HORVITZ E J ; PENNOCK D M**
Number of Countries: 001 Number of Patents: 001
Patent Family:
```
Patent No       Kind   Date     Applicat No   Kind   Date       Week
US 20040076936  A1     20040422 US 2000629217  A     20000731   200431  B
                                US 2003686198   A     20031015
```
Priority Applications (No Type Date): US 2000629217 A 20000731; US
  2003686198 A 20031015
Patent Details:
```
Patent No  Kind Lan Pg   Main IPC     Filing Notes
US 20040076936 A1     20 G09B-019/00  Cont of application US 2000629217
                                      Cont of patent US 6655963
```
Abstract (Basic): US 20040076936 A1
     NOVELTY - The method involves generating a probability that the
active entitys true personality type is that of the current other
entity using a personality type generation process (134). A probability
that the active entity values the attribute with the current possible
values is produced based on the above probability. A possible value
having maximum probability is selected based on the probability.
     DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
following:
     (a) a machine readable medium having instructions to perform the
method
     (b) an apparatus for predicting the value of an attribute of an
active entity.
     USE - Used for predicting a value of an attribute (claimed) e.g. a
persons preferences that is indicated by the ratings of the items e.g.
a book, a movie, a household appliance, a consumer good, a business
good, a clothing, and a financial instrument to recommend the items.
     ADVANTAGE - The determination of the two probabilities favorably
orders query for the attribute values, thereby avoiding the frustration
of the user while recommending the items.
     DESCRIPTION OF DRAWING(S) - The drawing shows a high level bubble
diagram of persons preferences predicting method.

                    User interface (114)
                    Network (120)
                    Personality type generation process (134)
                    Attribute value probability storage (139)
                    Database prunning/management process (144)
                    pp; 20 DwgNo 1/9
Derwent Class: P85; T01; W05
International Patent Class (Main): G09B-019/00

 3/34/2   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
015882778   **Image available**
WPI Acc No: 2004-040611/200404
Attribute value e.g. persons preference predicting method, involves
determining probability that person values attribute having no assigned value
with current value based on probability that each person has same personality
type
Patent Assignee: MICROSOFT CORP (MICT)
Inventor: **HORVITZ E J ;   PENNOCK D M**
Number of Countries: 001   Number of Patents: 001
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
US 6655963   B1   20031202 US 2000629217 A   20000731 200404 B
Priority Applications (No Type Date): US 2000629217 A 20000731
Patent Details:
Patent No   Kind Lan Pg   Main IPC   Filing Notes
US 6655963   B1   18 G09B-019/00
Abstract (Basic): US 6655963 B1
          NOVELTY - The method involves generating a probability that a
     persons true personality type is same as that of every other persons. A
     probability that the person values an attribute with current possible
     value based on previous probability is determined for possible
     attribute value with no assigned value. A possible value with the
     maximum probability determined in previous step is selected to generate
     a predicted value.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
     following:
          (1) a machine-readable medium
          (2) an apparatus for predicting the value of an attribute of an
     active entity.
          USE - Used for predicting an attribute value e.g. item ratings or
     persons preference to recommend an item e.g. a book, movie, household
     appliance, consumer good, business good, clothing, and financial
     instrument.
          ADVANTAGE - The method minimizes the number of explicit ratings of
     users while maximizing the accuracy of the determined personality
     probabilities. The method allows the attributes whose values add little
     benefit to the accuracy of the recommendation to be removed from
     database, thereby mitigating storage requirements and processing time.
          DESCRIPTION OF DRAWING(S) - The drawing shows a bubble diagram of
     processes that perform attribute values prediction.
          Front end device (110)
          User interface (114)
          Network (120)
          Back end device (130)

        pp; 18 DwgNo 1/9
Derwent Class: P85; T01
International Patent Class (Main): G09B-019/00

  6/34/1   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
011659821   **Image available**
WPI Acc No: 1998-076729/199807
Collaborative filtering **system using belief network or Bayesian network** -
**using belief network contg user attribute and user preference nodes, and
determining preference having greatest likelihood of desired preference by
evaluating probabilities of preference nodes given values of attribute nodes**
Patent Assignee: MICROSOFT CORP (MICR-N)
Inventor: BREESE J S; CHICKERING D M; HECKERMAN D E; **HORVITZ E**
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
US 5704017   A   19971230 US 96602238   A   19960216 199807 B
Priority Applications (No Type Date): US 96602238 A 19960216
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
US 5704017   A   29 G06F-017/00
Abstract (Basic): US 5704017 A
     The belief system learns a belief network using both prior
  knowledge obtained from an expert in a given field of decision making
  and a database containing empirical data obtained from many people. The
  empirical data contains attributes of users as well as their
  preferences in the field of decision making. After initially learning
  the belief network, the belief network is relearned at various
  intervals when additional attributes are identified as having a causal
  effect on the preferences and data for these additional attributes can
  be gathered.
     This relearning allows the belief network to improve its accuracy
  at predicting preferences of a user. Upon each iteration of relearning,
  a cluster model is automatically generated that best predicts the data
  in the database. After relearning the belief network a number of times,
  the belief network is used to predict the preferences of a user using
  probabilistic inference. In performing probabilistic inference, the
  known attributes of a user are received and the belief network is
  accessed to determine the probability of the unknown preferences of the
  user given the known attributes. Based on these probabilities, the
  preference most likely to be desired by the user can be predicted.
     ADVANTAGE - Prior knowledge from expert in given field of decision
  making is used to seed clustering, producing clusters which accurately
  reflect data in database. Number of clusters is determined
  automatically, which is more reliable than manually predicting and
  inputting number of clusters. No distance metric is needed to reduce
  amount of data gathered before system can run. Non-numerical attributes
  are used to eliminate errors introduced into the system through
  transposition of non-numerical values into numerical values. Output of
  system is clustering model that is easily modifiable by administrator
  so that it can be fed back into system and improved in iteratively,
  leading to improved accuracy in determining preferences of user.
     Dwg.3/13
Derwent Class: T01

International Patent Class (Main): G06F-017/00

6/3,AB/2   (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
00939317
SCHEMAS FOR A NOTIFICATION PLATFORM AND RELATED INFORMATION SERVICES
**SCHEMAS POUR UNE PLATE-FORME DE NOTIFICATION ET SERVICES D'INFORMATIONS
    ASSOCIEES**
Patent Applicant/Assignee:
  MICROSOFT CORPORATION, One Microsoft Way, Redmond, WA 98052, US, US
    (Residence), US (Nationality)
Inventor(s):
  HORVITZ Eric J , 330 Waverly Way, Kirkland, WA 98033, US,
  STECKLER Paul A, 2115 187th Ave NE, Redmond, WA 98052, US,
  PIERCE Shaun D, 24515 NE 11th Place, Sammamish, WA 98074, US,
  FANG Lijiang, 23618 NE 25th Way, Sammamish, WA 98074, US,
  LUCOVSKY Mark H, 811 Windsor Drive SE, Sammamish, WA 98074, US,
  WU Winnie C, 13605 SE 58th Place, Bellevue, WA 98006, US
Legal Representative:
  MICHALIK Albert S (agent), Suite 193, 704-228th Avenue NE, Sammamish, WA
    98074, US,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200273454 A2-A3 20020919 (WO 0273454)
  Application: WO 2002US8061 20020314   (PCT/WO US0208061)
  Priority Application: US 2001275809 20010314; US 200117680 20011022
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
  EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
  SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 28811
English Abstract
1 A schema-based notification platform (500) that provides regularized
  notification handling (506) including user control and normalization of
  the operation of policies across different information types and
  contexts. Information-service schemas and services (503) are combined to
  build a content-sensitive and context-sensitive information service to
  communicate information to recipient devices (508) of users that
  subscribe to those services. An information agent service (504) collects
  the information, and based on various criteria, determines if, when, and
  how to send and render the information, and to which subscribing client
  device or devices.

6/3,AB/3   (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
00762454

DECISION-ANALYTIC APPROACH TO HUMAN-COMPUTER INTERACTIONS
APPROCHE D'ANALYSE DE DECISION DES INTERACTIONS ORDINATEUR-UTILISATEUR
Patent Applicant/Assignee:
  MICROSOFT CORPORATION, One Microsoft Way, Redmond, WA 98052, US, US
    (Residence), US (Nationality)
Inventor(s):
  HORVITZ Eric , 330 Waverly Way, Kirkland, WA 98033, US
  PAEK Timothy, One Microsoft Way, Redmond, WA 98052, US
Legal Representative:
  DRYJA Michael A, Law Offices of Michael Dryja, 704 228th Avenue NE, PMB
    694, Redmond, WA 98053, US
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200075864 A1 20001214 (WO 0075864)
  Application: WO 2000US15272 20000602 (PCT/WO US0015272)
  Priority Application: US 99326043 19990604
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE
  GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK
  MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU
  ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 8767
English Abstract
  A multi-level decision-analytic approach to failure and repair within
  computer-user communications is disclosed. In one embodiment, a
  computerized system for repairing communication failure within a
  computer-user interaction context includes a maintenance module, an
  intention module, and a conversation control subsystem. The maintenance
  module manages uncertainty regarding signal identification and channel
  fidelity. The intention module is supported by the maintenance module,
  and manages uncertainty about the recognition of user's goals from
  signals. The conversation control subsystem surrounds both the modules,
  and manages the joint activity between the computer and the user, and one
  or more high-level events regarding the joint activity.

```
File    7:Social SciSearch(R) 1972-2004/Aug W4
File   11:PsycINFO(R) 1887-2004/May W5
File   34:SciSearch(R) Cited Ref Sci 1990-2004/Aug W4
File   35:Dissertation Abs Online 1861-2004/Jul
File  434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File  142:Social Sciences Abstracts 1983-2004/Jul
Set      Items    Description
S1          23    AU='HORVITZ E' OR AU='HORVITZ EJ'
S2           1    AU='HORVITZ, ERIC JOEL'
S3          16    AU='PENNOCK D' OR AU='PENNOCK DM'
S4           1    AU='PENNOCK, DAVID M.'
S5           0    S1:S2 AND S3:S4
S6          41    S1:S4
S7          40    RD (unique items)
S8      335906    PERSONALITY OR RECOMMEND OR COLLABORATIVE()FILTER???
S9           0    S7 AND S8
S10         40    Sort S7/ALL/PY,A
```

10/6/7   (Item 7 from file: 34)
01355876   Genuine Article#: GR814   Number of References: 97
Title: DECISION-ANALYSIS AND EXPERT SYSTEMS   (Abstract Available)

10/6/10   (Item 10 from file: 35)
01160453   ORDER NO: AAD91-15787
COMPUTATION AND ACTION UNDER BOUNDED RESOURCES
   Year: 1991

10/6/11   (Item 11 from file: 34)
00883873   Genuine Article#: FC762   Number of References: 0
Title: INTELLEYE, AN EXPERT SYSTEM FOR DIAGNOSING OPHTHALMOLOGIC DISEASES
    FROM IMAGES OF THE OCULAR FUNDUS

10/6/12   (Item 12 from file: 34)
01795793   Genuine Article#: JB366   Number of References: 92
Title: TOWARD NORMATIVE EXPERT SYSTEMS .1. THE PATHFINDER PROJECT   (
    Abstract Available)

10/6/19   (Item 19 from file: 7)
02769122   Genuine Article#: RF227   Number of References: 45
Title: UNCERTAIN REASONING AND FORECASTING   (Abstract Available)
   1995

10/6/20   (Item 20 from file: 34)
05677210   Genuine Article#: WP604   Number of References: 0
Title: Flexible computation: Results, issues, and opportunities
Publication date: 19970300

10/6/21   (Item 21 from file: 34)
08061992   Genuine Article#: 242MH   Number of References: 15
Title: Uncertainty, action, and interaction: in pursuit of mixed-initiative
    computing
Publication date: 19990900

10/6/24   (Item 24 from file: 34)
10046546   Genuine Article#: BS90A   Number of References: 0
Title: Uncertainty, utility, and understanding

Publication date: 20000000

10/6/26   (Item 26 from file: 34)
10568590   Genuine Article#: BU09W   Number of References: 11
Title: **Harnessing models of users' goals to mediate clarification dialog in**
    spoken language systems   (ABSTRACT AVAILABLE)
Publication date: 20010000·

10/6/29   (Item 29 from file: 34)
09431933   Genuine Article#: 406AR   Number of References: 69
Title: **Principles and applications of continual computation**   (ABSTRACT
    AVAILABLE)
Publication date: 20010200

10/6/30   (Item 30 from file: 34)
09431927   Genuine Article#: 406AR   Number of References: 0
Title: **Computational tradeoffs under bounded resources**
Publication date: 20010200

10/6/32   (Item 32 from file: 34)
09379626   Genuine Article#: 398QG   Number of References: 5
Title: **Persistence of Web references in scientific research**   (ABSTRACT
·   AVAILABLE)
Publication date: 20010200

10/6/35   (Item 35 from file: 34)
10586448   Genuine Article#: 543DX   Number of References: 25
Title: **Winners don't take all: Characterizing the competition for links on**
    the web   (ABSTRACT AVAILABLE)
Publication date: 20020416

10/6/36   (Item 36 from file: 34)
12361826   Genuine Article#: BY06X   Number of References: 4
Title: **RightSPOT: A novel sense of location for a Smart Personal Object**   (
    ABSTRACT AVAILABLE)
Publication date: 20030000

10/6/39   (Item 39 from file: 34)
11640357   Genuine Article#: 677YG   Number of References: 12
Title: **Models of attention in computing and communication: From principles**
    to applications
Publication date: 20030300

10/6/40   (Item 40 from file: 7)
04082911   Genuine Article#: 841TK   Number of References: 16
Title: **Actions, answers, and uncertainty: a decision-making perspective on**
    Web-based question answering   (ABSTRACT AVAILABLE)
  2004

10/7/8   (Item 8 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.
01355575   Genuine Article#: GR511   Number of References: 18
Title: **PROBABILISTIC DIAGNOSIS USING A REFORMULATION OF THE INTERNIST-1/QMR**
    KNOWLEDGE BASE .2. EVALUATION OF DIAGNOSTIC PERFORMANCE
Author(s): MIDDLETON B; SHWE MA; HECKERMAN DE; HENRION M; **HORVITZ EJ** ;

LEHMANN HP; COOPER GF
Corporate Source: STANFORD UNIV,MED INFORMAT SECT,MED SCH OFF
    BLDG,X215/STANFORD//CA/94305; UNIV PITTSBURGH,MED INFORMAT
    SECT/PITTSBURGH//PA/15260
Journal: METHODS OF INFORMATION IN MEDICINE, 1991, V30, N4, P256-267
Language: ENGLISH   Document Type: ARTICLE

Abstract: We have developed a probabilistic reformulation of the Quick
    Medical Reference (QMR) system. In Part I of this two-part series, we
    described a two-level, multiply connected belief-network representation
    of the QMR knowledge base and a simulation algorithm to perform
    probabilistic inference on the reformulated knowledge base. In Part II
    of this series, we report on an evaluation of the probabilistic QMR, in
    which we compare the performance of QMR to that of our probabilistic
    system on cases abstracted from continuing medical education materials
    from Scientific American Medicine. In addition, we analyze empirically
    several components of the probabilistic model and simulation algorithm.

 10/7/9   (Item 9 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.
01355574   Genuine Article#: GR511   Number of References: 42
Title: PROBABILISTIC DIAGNOSIS USING A REFORMULATION OF THE INTERNIST-1/QMR
    KNOWLEDGE BASE .1. THE PROBABILISTIC MODEL AND INFERENCE ALGORITHMS
Author(s): SHWE MA; MIDDLETON B; HECKERMAN DE; HENRION M; HORVITZ EJ ;
    LEHMANN HP; COOPER GF
Corporate Source: STANFORD UNIV,MED INFORMAT SECT,MED SCH OFF
    BLDG,X215/STANFORD//CA/94305; STANFORD UNIV,MED INFORMAT SECT,MED SCH
    OFF BLDG,X215/STANFORD//CA/94305; UNIV PITTSBURGH,MED INFORMAT
    SECT/PITTSBURGH//PA/15260
Journal: METHODS OF INFORMATION IN MEDICINE, 1991, V30, N4, P241-255
Language: ENGLISH   Document Type: ARTICLE

Abstract: In Part I of this two-part series, we report the design of a
    probabilistic reformulation of the Quick Medical Reference (QMR)
    diagnostic decision-support tool. We describe a two-level multiply
    connected belief-network representation of the QMR knowledge base of
    internal medicine. In the belief-network representation of the QMR
    knowledge base, we use probabilities derived from the QMR disease
    profiles, from QMR imports of findings, and from National Center for
    Health Statistics hospital-discharge statistics.
        We use a stochastic simulation algorithm for inference on the
    belief network. This algorithm computes estimates of the posterior
    marginal probabilities of diseases given a set of findings. In Part 11
    of the series, we compare the performance of QMR to that of our
    probabilistic system on cases abstracted from continuing medical
    education materials from Scientific American Medicine. In addition, we
    analyze empirically several components of the probabilistic model and
    simulation algorithm.

 10/7/13   (Item 13 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.
02575837   Genuine Article#: LN079   Number of References: 44
Title: A BAYESIAN-ANALYSIS OF SIMULATION ALGORITHMS FOR INFERENCE IN BELIEF
    NETWORKS
Author(s): DAGUM P; HORVITZ E
Corporate Source: STANFORD UNIV,MED CTR,SCH MED,MED INFORMAT

SECT/STANFORD//CA/94305; ROCKWELL PALO ALTO LAB/PALO ALTO//CA/94301
Journal: NETWORKS, 1993, V23, N5 (AUG), P499-516
ISSN: 0028-3045
Language: ENGLISH   Document Type: ARTICLE

Abstract: A belief network is a graphical representation of the underlying
    probabilistic relationships in a complex system. Belief networks have
    been employed as a representation of uncertain relationships in
    computer-based diagnostic systems. These diagnostic systems provide
    assistance by assigning likelihoods to alternative explanatory
    hypotheses in response to a set of findings or observations.
    Approximation algorithms have been used to compute likelihoods of
    hypotheses in large networks. We analyze the performance of leading
    Monte Carlo approximation algorithms for computing posterior
    probabilities in belief networks. The analysis differs from earlier
    attempts to characterize the behavior of simulation algorithms in our
    explicit use of Bayesian statistics: We update a probability
    distribution over target probabilities of interest with information
    from randomized trials. For real epsilon, delta < 1 and for a
    probabilistic inference $Pr[x\backslash e]$, the output of an inference
    approximation algorithm in an (epsilon, delta)-estimate of $Pr[x\backslash e]$ if
    with probability at least 1 - delta the output is within relative error
    epsilon of $Pr[x\backslash e]$. We construct a stopping rule for the number of
    simulations required by logic sampling, randomized approximation
    schemes, and likelihood weighting to provide (epsilon, delta)-estimates
    of $Pr[x\backslash e]$. With probability 1 - delta, the stopping rule is optimal in
    the sense that the algorithm performs the minimum number of required
    simulations. We prove that our stopping rules are insensitive to the
    prior probability distribution on $Pr[x\backslash e]$.   (C) 1993 by John Wiley &
    Sons, Inc.

10/7/14   (Item 14 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.
02314714   Genuine Article#: KT658   Number of References: 14
Title: AN APPROXIMATE NONMYOPIC COMPUTATION FOR VALUE OF INFORMATION
Author(s): HECKERMAN D; **HORVITZ E** ; MIDDLETON B
Corporate Source: UNIV CALIF LOS ANGELES,DEPT COMP SCI/LOS
    ANGELES//CA/90024; MICROSOFT RES CTR/REDMOND//WA/98052; ROCKWELL INT
    CORP,CTR SCI,PALO ALTO LAB/PALO ALTO//CA/94301; STANFORD UNIV,MED
    CTR,MED INFORMAT SECT/STANFORD//CA/94305
Journal: IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE,
    1993, V15, N3 (MAR), P292-298
ISSN: 0162-8828
Language: ENGLISH   Document Type: NOTE

Abstract: Value-of-information analyses provide a means for selecting the
    next best observation to make and for determining whether it is better
    to gather additional information or to act immediately. Determining the
    next best test to perform. given uncertainty about the state of the
    world. requires a consideration of the value of making all possible
    sequences of observations. In practice, decision analysts and
    expert-system designers have avoided the intractability of exact
    computation of the value of information by relying on a myopic
    assumption that only one additional test will be performed, even when
    there is an opportunity to make a large number of observations. We
    present an alternative to the myopic analysis. In particular, we
    present an approximate method for computing the value of information of

a set of tests, which exploits the statistical properties of large
samples. The approximation is linear in the number of tests, in
contrast with the exact computation, which is exponential in the number
or tests. The approach is not as general as is a complete nonmyopic
analysis, in which all possible sequences of observations are
considered. In addition, the approximation is limited to specific
classes of dependencies among evidence and to binary hypothesis and
decision variables. Nonetheless, as we demonstrate with a simple
application. the approach can offer an improvement over the myopic
analysis.

10/7/15   (Item 15 from file: 34)
DIALOG(R)File   34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.
03571722   Genuine Article#: PN700   Number of References: 18
**Title: DYNAMIC CONSTRUCTION AND REFINEMENT OF UTILITY-BASED CATEGORIZATION
MODELS**
Author(s): POH KL;. FEHLING MR; **HORVITZ EJ**
Corporate Source: NATL UNIV SINGAPORE,DEPT IND & SYST ENGN,KENT.
    RIDGE/SINGAPORE 0511//SINGAPORE/; STANFORD UNIV,DEPT ENGN ECON
    SYST,INTELLIGENT SYST LAB/STANFORD//CA/94305; MICROSOFT RES,DECIS
    THEORY GRP/REDMOND//WA/98052
Journal: IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS, 1994, V24, N11 (
    NOV), P1653-1663
ISSN: 0018-9472
Language: ENGLISH   Document Type: ARTICLE
Abstract: The actions taken by an automated decision-making agent can be
    enhanced by including mechanisms that enable the agent to categorize
    concepts effectively. We pose a utility-based approach to
    categoriztion based on the idea that categorization should be carried
    out in the service of action. The choice of concepts made by a
    decision maker is critical in the effective selection of actions under
    resource constraints. This perspective is in contrast to classical and
    similarity-based approaches which seek completeness in concept
    description with respect to shared properties rather than the
    effectiveness of decision making. We propose a decision-theoretic
    framework for utility-based categorization which involves reasoning
    about alternative categorization models consisting of sets of
    interrelated concepts at varying levels of abstraction. Categorization
    models that are too abstract may overlook details that are critical for
    selecting the most appropriate actions. Categorization models that are
    too detailed, however, may be too expensive to process and may contain
    information that is irrelevant for selecting the best action.
    Categorization models are therefore evaluated on the basis of the
    expected value of their recommended action, taking into account the
    associated resource cost required for their evaluation. A knowledge
    representation scheme, known as probabilistic conceptual networks, has
    been developed to support the dynamic construction of models at varying
    levels of abstraction. This knowledge representation scheme combines
    the formalisms of influence diagrams from decision analysis and
    inheritance/abstraction hierarchies from artificial intelligence. We
    also propose an incremental approach to categorical reasoning which
    involves the dynamic construction and refinement of categorization
    models. A model may be improved by making the concepts under
    consideration either more abstract or more detailed. The expected
    increase in value of the recommended action may be used to direct and

control the direction of model improvements. By applying
decision-theoretic control of model refinement, a resource-constrained
actor iteratively decides between continuing to improve the current
level of abstraction in the model, or to act immediately.

 10/7/23   (Item 23 from file: 35)
DIALOG(R)File   35:Dissertation Abs Online
(c) 2004 ProQuest Info&Learning. All rts. reserv.
01734734   ORDER NO: AADAA-I9959840
**Aggregating probabilistic beliefs: Market mechanisms and graphical
representations**
   Author: **Pennock, David M.**
   Degree: Ph.D.
   Year: 1999
   Corporate Source/Institution: The University of Michigan (0127)
   Chair: Michael P. Wellman
   Source: VOLUME 61/02-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
            PAGE 937. 129 PAGES
 A long-standing question in statistics is how best to aggregate the
probabilistic beliefs of multiple agents. Related is the practical question
of how to represent the combined beliefs efficiently. This dissertation
reports contributions on both fronts.
     First, I formulate and analyze a securities market mechanism for
aggregating beliefs. Equilibrium prices in the market are interpreted as
consensus beliefs. Under homogeneity conditions regarding agents'
utilities, the market mechanism corresponds with standard aggregation
functions, and the market's outward behavior is indistinguishable from that
of an individual. I also explore extensions to the model in which agents
learn from prices and the market as a whole adapts over time. In certain
circumstances, price fluctuations can be viewed as the Bayesian updates of
a rational individual.
     Second, I investigate the use of graphical models, and in particular
Bayesian networks, for representing aggregate beliefs. I derive two
impossibility theorems which contradict widely held intuitions about how
Bayesian networks should be combined. The so-called logarithmic opinion
pool is shown to admit relatively concise encodings. I describe the nature
of graphical structures consistent with this pooling function, and give
algorithms for computing the logarithmic and linear opinion pools with, in
some cases, exponential speedups over standard methods.
     Finally, I apply and extend the graphical modeling results to the
market framework, deriving sufficient conditions for compact markets to be
operationally complete. Such markets still induce a complete consensus
distribution and support Pareto optimal allocations of risk, but with
exponentially fewer securities than required for traditional completeness.

 10/7/37   (Item 37 from file: 34)
DIALOG(R)File   34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.
11885941   Genuine Article#: 705VL   Number of References: 12
Title: The self-organized Web: The yin to the semantic Web's yang
Author(s): Flake GW; **Pennock DM** ; Fain DC
Journal: IEEE INTELLIGENT SYSTEMS, 2003, V18, N4 (JUL-AUG), P75-77
ISSN: 1094-7167   Publication date: 20030700
Publisher: IEEE COMPUTER SOC, 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS
     ALAMITOS, CA 90720-1314 USA
Language: English   Document Type: EDITORIAL MATERIAL

```
File 635:Business Dateline(R) 1985-2004/Aug 28
File 560:Spokane Spokesman-Review 1994-2004/May 27
File 707:The Seattle Times 1989-2004/Aug 29
File 736:Seattle Post-Int. 1990-2004/Aug 30
File 471:New York Times Fulltext 90-Day 2004/Aug 31
File 638:Newsday/New York Newsday 1987-2004/Aug 30
File 719:(Albany) The Times Union Mar 1986-2004/Aug 30
File 733:The Buffalo News 1990- 2004/Aug 29
File 743:(New Jersey)The Record 1989-2004/Aug 30
File  16:Gale Group PROMT(R) 1990-2004/Aug 31
File 160:Gale Group PROMT(R) 1972-1989
File 621:Gale Group New Prod.Annou.(R) 1985-2004/Aug 31
File 148:Gale Group Trade & Industry DB 1976-2004/Aug 31
```

Set	Items	Description
S1	47	ERIC(1W)HORVITZ
S2	14	(DAVE OR DAVID)(1W)PENNOCK
S3	0	S1 AND S2
S4	61	S1:S2
S5	39	RD (unique items)
S6	1	AU='PENNOCK, DAVID M.'
S7	3	AU='HORVITZ, ERIK'
S8	4	S6:S7
S9	4	RD (unique items)
S10	38	S5 NOT S8
S11	38	Sort S10/ALL/PD,A

9/7/1   (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
14520315   SUPPLIER NUMBER: 70741124   (THIS IS THE FULL TEXT)
**The Real Power of Artificial Markets.(playmoney market probabilities)(Brief
    Article)(Statistical Data Included)**
 PENNOCK, DAVID M. ; LAWRENCE, STEVE; GILES, C. LEE; NIELSEN, FINN ARUP
Science, 291, 5506, 987
Feb 9, 2001
TEXT:
        ASSESSING THE PROBABILITIES OF FUTURE events is a problem often faced
by science policymakers. For example, CERN, the European laboratory for
particle physics, recently had to judge whether the probability of
discovering a Higgs boson was high enough to justify extending the
operation of its collider (see Science, 22 Sept., p. 2014, and 29 Sept., p.
2260). At the Foresight Exchange (FX) Web site
(http://www.ideosphere.com/), traders can actually bet on the outcomes of
unresolved scientific questions, including whether physicists will discover
the Higgs boson by 2005. The going price of the security (0.77 as of 24
January) can be seen as the market's assessment of the probability of the
particle's discovery. FX is only a game, run with play money (FX dollars).
Empirical studies (1), laboratory investigations (2), and policy proposals
(3) suggest that prices of real-money securities do constitute accurate
likelihoods, because traders have strong (monetary) incentives to leverage
pertinent information. But can we place legitimate credence on the accuracy
of FX prices, which are determined solely through competition in a
play-money market game?
        To an extent, yes. We find that FX prices strongly correlate with
observed outcome frequencies. We collected historical price information for
161 expired securities, corresponding to questions that had been

definitively answered "yes" or "no," recorded prices 30 days before
expiration, sorted securities by price, and grouped them into six price
ranges. The figure is a plot of observed frequency (the actual number of
"yes" securities divided by the total number) versus average price (in FX
dollars) for each group. Error bars display 95% confidence intervals, under
an assumption that outcomes are independent Bernoulli trials with a uniform
prior. We find similar accuracy in another playmoney market called the
Hollywood Stock Exchange (http://www.hsx.com/). Prices of securities in
Oscar, Emmy, and Grammy awards correlate well with actual award outcome
frequencies, and prices of movie stocks accurately predict real box office
results.

DAVID M. PENNOCK,(1)(*) STEVE LAWRENCE,(1) C. LEE GILES,(2) FINN
ARUP NIELSEN(3)

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University of Denmark, DK-2800 Lyngby, Denmark.

(*) To whom correspondence should be addressed. E-mail: dpennock
@research.nj.nec.com

References and Notes

(1.) R. Forsythe, T. A. Rietz, T. W. Ross, J. Econ. Behav. Organ.
39, 83 (1999).

(2.) C. R. Plott and S. Sunder, Econometrica 56 (no. 5), 1085
(1988).

(3.) R. D. Hanson, Soc. Epistemol. 9 (no. 1), 3 (1995).

11/3,K/13   (Item 13 from file: 743)
DIALOG(R)File 743:(New Jersey)The Record
(c) 2004 No.Jersey Media G Inc. All rts. reserv.
10748010
**A SMART NEW WORLD IS ON THE HORIZON ARTIFICAL INTELLIGENCE FOR EVERYDAY
  USE**
Record (Northern New Jersey) (RE) - MONDAY, September 4, 2000
By: JAMES JANEGA, Special from the Chicago Tribune
Edition: All Editions Section: BUSINESS Page: h06
Word Count: 1,258
...to say about it, we are likely to be talking to our computers soon, says
 Eric   Horvitz , a senior researcher at Microsoft.
    A user might talk to the computer "to clarify understanding...

11/3,K/19   (Item 19 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
08352848   Supplier Number: 70732666   (USE FORMAT 7 FOR FULLTEXT)
The Power of Play: Game Markets Offer Serious Predictions.
Business Wire, p2107
Feb 22, 2001
Language: English   Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 855
...   terms of combining information and making predictions, game markets
can be similarly valuable," said Dr. **David   Pennock** of NEC Research

Institute, the study's lead author. "Another advantage of game markets is...

11/3,K/22   (Item 22 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
08444058   Supplier Number: 71941702   (USE FORMAT 7 FOR FULLTEXT)
**The Power of Play: Artificial Game Markets Offer Serious Predictions; NEC
    Research Institute Study Finds That Online "Market Games" Can Accurately
    Forecast Future Events.**
Business Wire, p2113
March 21, 2001
Language: English   Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 912
...   and make that information available to the public in the form of
prices," said Dr. **David   Pennock** , a research scientist at the NEC
Research Institute and the study's lead author. "While...

11/3,K/26   (Item 26 from file: 707)
DIALOG(R)File 707:The Seattle Times
(c) 2004 Seattle Times. All rts. reserv.
11098096
**Some leery of `HailStorm' Microsoft's service stirs up online privacy
    issues**
Seattle Times (SE) - Sunday April 8, 2001
By: Brier Dudley; Seattle Times technology reporter
Edition: Sunday Section: ROP Business   Page: D1
Word Count: 1,139
... they are busy and when to interrupt them with important messages and
calls.
    Microsoft   researcher   **Eric   Horvitz** , who demonstrated the seeing and
listening "notification platform" at a conference in Seattle last week...

11/3,K/30   (Item 30 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
09332839   Supplier Number: 81464285   (USE FORMAT 7 FOR FULLTEXT)
Anticiparallelism.(Future Watch)
Anthes, Gary H.
Computerworld, p43
Jan 7, 2002
Language: English   Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 826
TEXT:
Microsoft Corp. researcher **Eric   Horvitz** says he's trying to figure out
"what a computer should worry about when its...

11/3,K/31   (Item 31 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
14348552   SUPPLIER NUMBER: 83374407 '   (USE FORMAT 7 OR 9 FOR FULL TEXT)
**A.I. Reboots: 2001 has come and gone, with dreams of a hal-like computer
    long since abandoned. But in scaling back their promises,
    artificial-intelligence researchers are finally starting to score
    significant successes.**

Hiltzik, Michael
Technology Review (Cambridge, Mass.), 105, 2, 47(8)
March, 2002
ISSN: 1099-274X · LANGUAGE: English   RECORD TYPE: Fulltext
WORD COUNT: 3947   LINE COUNT: 00332
...   is aimed at conjuring up real-world applications.
        Here several teams under the direction of **Eric   Horvitz** , senior
researcher and manager of the Adaptive Systems and Interaction group, are
working to improve...

 11/3,K/34   (Item 34 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
10483195   Supplier Number: 101941084   (USE FORMAT 7 FOR FULLTEXT)
**Minding your business: humanizing gadgetry to tame the flood of
  information.(human-machine interaction)**
Weiss, Peter
Science News, v163, n18, p279(3)
May 3, 2003
Language: English   Record Type: Fulltext
Document Type: Magazine/Journal; General
Word Count: 2215
...   are on a mission to change the way it feels to work with
computers," says **Eric   Horvitz** of Microsoft Research in Redmond, Wash.
The fruit of all these efforts will be that...

 11/3,K/38   (Item 38 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
16640182   SUPPLIER NUMBER: 112646934   (USE FORMAT 7 OR 9 FOR FULL TEXT)
10 emerging technologies that will change your world.(Cover Story)
Technology Review (Cambridge, Mass.), 107, 1, 32(16)
Feb, 2004
DOCUMENT TYPE: Cover Story   ISSN: 1099-274X   LANGUAGE: English
RECORD TYPE: Fulltext
WORD COUNT: 8074   LINE COUNT: 00678
...   Agena hopes to deploy the technology internationally. "These things
sound far out," says Microsoft researcher **Eric   Horvitz** , who, with
Heckerman, is a leading proponent of probabilistic methods. "But we are
creating usable...
...Intel Architecture Research Laboratory
        (Santa Clara, CA)
        Manufacturing tools; open-source Bayesian software
        :DAVID HECKERMAN
        : **ERIC   HORVITZ**
        Microsoft Research
        (Redmond, WA)
        Spam filtering; advanced data-mining tools; intelligent office
assistants
        :MICHAEL I...

 11/7/23   (Item 23 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
08484912   Supplier Number: 72631466   (THIS IS THE FULLTEXT)
Microsoft interface is watching you.(Company Business and Marketing)

Bradbury, Danny
Computer Weekly, p44   \
March 22, 2001
TEXT:
 Microsoft chief executive Steve Ballmer revealed future enhancements to
its user interface technology, including e-mail prioritisers, under
research in Microsoft labs, when speaking at the Association for Computing
Machinery AGM1 Conference in San Jose last week, writes Danny Bradbury.
        Ballmer supervised a demonstration of Priorities, an artificial
intelligence technology that uses data, such as header structure and
information about relationships between different people, to work out which
e-mails are important. The significant part of the technology, which would
otherwise be little more than a smart mail filter, is its ability to gauge
what the user is doing by using scheduler information, and even sensor
technology to gain information from the ambient acoustics in a room. This
helps it to work out what the user is doing and whether or not it should
deliver e-mail.
        This filtering technology, without the ambient sensors, underlies
Outlook Mobile Manager
(www.microsoft.com/Office/Outlook/mobile/default.htm), which was unveiled a
couple of weeks ago and is currently available as a beta download. The
product is designed for use with the Microsoft Mobile Information 2001
Server.
        Eric   Horvitz , a researcher at Microsoft, demonstrated the
Notification Platform, which takes this technology a stage further. It
monitors actions like desktop activity and could even have the potential to
use "accelerometer" data to see whether or not a person is moving.
        Such data about the end users' situation would be passed to the
central notification manager in an XML format, which **Horvitz** refers to as
the notification schema.
        "The system knows that I am facing front and can see what
applications I am using. It is also looking at my calendar," said **Horvitz**,
adding that the system can also conduct a voice trace or sense him gazing
at the display. "It uses this information to compute my space. Am I
high-focus solo or am I low-focus solo? Am I sleeping?"
        This is by no means original research. IBM has been conducting
similar work with its BlueEyes project (www.almaden.ibm.com/cs/blueeyes),
which was also on show at the conference, although, like the Microsoft
project, no firm date has been given for a launch.
        Other user interface technology on show from Microsoft included a 3D
environment in which users could store different Internet Explorer
sessions, pulling off different ones configured for different tasks.
        It also demonstrated its Easyliving project, which used Soap-like
access protocols to create an automated house environment in which devices
were automatically controlled according to the position of the residents.
        But the most interesting user interface technology is the most
immediate -- speech recognition, which is being roiled out as part of the
.net initiative and will be included in the imminent Office XP product.
However, there was a basic contradiction in the speech that Ballmer made at
the show. He said, "Some ask whether Microsoft and standards go together.
The answer is yes."
        It is interesting, then, that the company is not a member of the
VoiceXML consortium. The group is developing XML-based voice control
mechanisms for user interaction with server-side applications online which,
given the mix of server-centric services and speech recognition in .net,
places it squarely on Microsoft's radar.

This, along with Microsoft's increasing interest in speech recognition, should worry smaller companies in this area, which could do without this type of competition in the current economic climate.

11/7/25   (Item 25 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
08508685   Supplier Number: 73071003 (THIS IS THE FULLTEXT)
**Microsoft software to filter, rank e-mail.(Company Business and
  Marketing)(Brief Article)**
Chidi, George A., Jr.
Network World, pNA
April 5, 2001
TEXT:

Microsoft researchers are developing e-mail software that learns what messages are important to users and which aren't, ranking them by urgency, Chairman and Chief Software Architect Bill Gates Tuesday said to technologists at the Computer-Human Interaction Conference in Seattle.

The software will learn user's preferences and priorities over time, Microsoft said. It will do this in part by examining which e-mails users read first, and which people users communicate with most often, performing a statistical analysis, said a spokeswoman from Microsoft's public relations firm.

Outlook Mobile Manager includes a test version of the e-mail ranking software as part of the optional "Priorities/Notification" add-on, the company said. Future versions of Microsoft Office and the Windows XP operating system will include e-mail ranking functions, Microsoft added.

Eventually, the ranking software will incorporate an "intelligent agent" which can interrupt user activities for really important messages, and which will be capable of judging the right time and place to do so.

Microsoft President and CEO Steve Ballmer first described the Priorities software last month at the ACM1: Beyond Cyberspace technology conference in San Jose.

"One of the interesting features about having a priority mail filter is that it becomes a sort of junk mail filter too," **Eric Horvitz** , an engineer with Microsoft Research Labs who joined Ballmer on stage, said at the time.

```
File 647:CMP  Computer Fulltext 1988-2004/Aug W4
File 674:Computer News Fulltext 1989-2004/Aug W3
File  16:Gale Group PROMT(R) 1990-2004/Sep 01
File 160:Gale Group PROMT(R) 1972-1989
File  47:Gale Group Magazine DB(TM) 1959-2004/Sep 01
File 148:Gale Group Trade & Industry DB 1976-2004/Sep 01
File 621:Gale Group New Prod.Annou.(R) 1985-2004/Sep 01
File  88:Gale Group Business A.R.T.S. 1976-2004/Aug 31
File 275:Gale Group Computer DB(TM) 1983-2004/Sep 01
Set     Items    Description
S1       1708    COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-
                 )()(SYSTEM? ? OR TECHNIQUE? ? OR METHOD? ?)
S2    5192359    ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES
                 OR RATING? ? OR TRAIT? ? OR CHARACTERISTIC? ?
S3    1480296    PROBAB? OR LIKELIHOOD
S4     339841    PERSONALITY OR PERSONALITIES
S5          2    S1(S)S4 [too recent]
S6    2172839    PERSONAL
S7      21517    S6()S2
S8         15    S1(S)S7
S9          5    S8/2001:2004
S10        10    S8 NOT S9
S11         4    RD (unique items)
S12      1752    S2(S)S3(S)(S4 OR S7)
S13    575544    AUTOMATED
S14   6112318    COMPUTER?
S15   3408997    INTERNET
S16        73    S12(S)S13:S15
S17        73    S16 NOT (S5 OR S8)
S18        59    RD (unique items)
S19        12    S18/2001:2004
S20        47    S18 NOT S19
S21   2199725    COLLABORAT? OR FILTER??? OR RECOMMEND?
S22         5    S20(S)S21 [not relevant]
S23        42    S20 NOT S22
S24        42    Sort S23/ALL/PD,A
```

```
 11/3,AB,K/1      (Item 1 from file: 647)
DIALOG(R)File 647:CMP  Computer Fulltext
(c) 2004 CMP Media, LLC. All rts. reserv.
01133537   CMP ACCESSION NUMBER: NTG19970801S0033
```
**Personal Touch - Web Sites Are Learning To Cater To   Individual Needs To
     Win More Customers**
```
Rich Karpinski
NETGUIDE, 1997, n 408, PG70
PUBLICATION DATE: 970801
JOURNAL CODE: NTG     LANGUAGE: English
RECORD TYPE: Fulltext
SECTION HEADING: Features
WORD COUNT: 1849
TEXT:
```
     Every company wants crowds of visitors to view its Web site, but it's
easy to lose track of the real people-and the potentially rewarding
one-to-one relationships-that lie behind a Web server's log statistics.
That's changing, however, thanks to new technologies that let sites offer
personalized services and real Web-based communities. With such

technologies, the Internet may become the most personal of all media.
...   user doesn't necessarily know he/she is under watch, but benefits
from it nonetheless.
         Collaborative   filtering is the second approach. Users make their
 personal   preferences known by explicitly stating their interests or
ranking their opinions on certain topics. The system...

 11/3,AB,K/3   (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
06938169   Supplier Number: 58545239
**Timelines to the Future Three Movers and Shakers Point the way.(Technology
    Information)**
Searcher: The Magazine for Database Professionals, v8, n1, p80
Jan, 2000
Language: English   Record Type: Fulltext
Document Type: Magazine/Journal; Professional
Word Count: 7205
...   of the age of information overload. By 2010, a number of
technologies -- filtering, personal agents, **recommender   systems** ,
sophisticated information merging and summarization and correlation, and
effective selective dissemination of information -- have been...
...relationships with machines that act as personal assistants and create
very complex structured databases of **personal   preferences** , knowledge,
and experience. Because of the rapid cycles of technological obsolescence,
however, migrating these databases...

 11/9/2   (Item 1 from file: 674)
DIALOG(R)File 674:Computer News Fulltext
(c) 2004 IDG Communications. All rts. reserv.
 057491
 'Net Buzz
 Byline: Chris Nerney
 Journal: Network World   Page Number: 50
 Publication Date: February 10, 1997
 Word Count: 547   Line Count: 50
 Section Heading: Opinions
 Caption(s):   Photo, Jeet Singh
 Text:
 Art of the Deal, ATG-style
    Boston-based Internet applications and development tools vendor Art
Technology Group (ATG) has announced a $3 million financing agreement with
Internet uber-investor SOFTBANK Ventures, Inc.
    It is the first outside financing accepted by ATG since its founding in
1991 by MIT grads Jeet Singh and Joseph Chung. The 100-employee company up
till now has relied exclusively on - get this - revenues to fuel growth.
(Obviously Singh and Chung haven't read up on how to do this Internet
thing.)
    Singh said that financing move was prompted by a desire to promote a
new group of Java-based Internet management applications for organizations
with consumer-oriented Web sites. ``We thought the timing now was right to
spend some money on marketing,'' he said.
    Looking down the road, Singh said an IPO ``is a reasonably likely
occurrence in the next 24 months,'' though ``it's not a given, and not a
goal either.''
    Firefly nets some angels

Firefly Network, Inc., a collaborative filtering technology company, has purchased an agent applications developer based in San Francisco.

The purchase of NetAngels is part of Cambridge, Mass.-based Firefly's strategy to extend its open server platform, allowing businesses to create personalized communities online and to deliver personalized content to end-users.

Firefly is best known for its Web site, which uses **collaborative filtering** to direct members to music and movies they like best. Members submit information about **personal preferences**, which Firefly uses to point them toward stuff they'd like. As additional data is submitted, **collaborative filtering** allows Firefly to more precisely determine members' tastes.

Apparently Firefly is unaware of our preference for details, for it has declined to reveal terms of the purchase.

Why network managers annoy AOL

Mark Walsh heads a unit of America On Line that you dont hear many complaints about. Walsh works with businesses to set up ''private AOLs'' - you could call them ''AOL-tranets'' - that are inaccessible to the unwashed newbies, not that any of them can actually make a connection these days.

But Walsh has some complaints of his own. Serving on a panel at last week's Information Industry Association Venture Forum in New York, he was asked what posed the biggest threat to his unit's business. His answer: Fear, uncertainty and doubt among MIS managers about how Internet technology will affect their corporate networks and their jobs.

``When we go into a company, the last people we want to talk to are the MIS people,'' Walsh said.

Ouch. Maybe he could just mail them some disks instead.

Search engine called for clipping

Excite, Inc., an Internet search engine company based in Mountain View, Calif., has launched a free news-clipping service for the Web.

The service, called, NewsTracker, allows users to search a database of more than 300 magazines and newspapers, track up to 20 news topics - yes, including post-mortems on the civil trial of O.J. Guilty - or browse several news categories. NewsTracker also utilizes intelligent agent software that allows users to customize information.

So you think a few cheap gifts and fast moves will earn you the privilege of being our Valentine? Guess again, schmoopy. If you really want to win us over, have FTD deliver us your most heartfelt Internet and intranet news. Contact Chris Nerney at (508) 820-7451 or cnerney@nww.com.

24/3,AB,K/22   **(Item 22 from file: 674)**
DIALOG(R) File 674:Computer News Fulltext
(c) 2004 IDG Communications. All rts. reserv.
052596
The New Shopping Network
Computerworld Retail Journal
Most retailers know that computer shopping may be the hottest thing since Sears delivered its first mail-order catalog. But the household names of the next century will be those retailers who get technology-smart before it's too late
Byline: Judy Newdom
Journal: Computerworld   Page Number: R11
Publication Date: June 01, 1996
Word Count: 1915   Line Count: 181
Text:
... the first time. Not to demean world peace, but to the retailer, the

number of **computerized** households is of great significance. As more families get online, the importance of having a...
... privacy invasion, larceny and credit-card fraud. Consider the task of competition tracking. On the **Internet** , unknown retailers - the mom-and-pop shops of America and the world - can appear to...
... no longer reasonable. Worse, can a retailer afford to have a different policy on the **Internet** than it has in its store? Will customers tolerate those differences? What about pricing? Meeting...
...anywhere. Will customers rebel at the same store having different prices for products on the **Internet** than in the land-based store? How will policies govern purchases and returns between the...
... this long, however, may find new obstacles to passing through the electronic tollgate. In all **likelihood** , they'll find their offerings usurped by entrepreneurial newcomers. Already, more than 10,000 stores are listed in the **Internet** -Mall (www. **internet** -mall.com/imall.htm), and nearly all of them are unknown entries. But amid the...
... advantages to retailing on the Web. The biggest boon is customer willingness to identify their **personal preferences** on a **computer** and to customize offerings - even customers who are normally reluctant to give personal data to...
...service provider (www.peapod.com). This Web-based retailer succeeds in a market where non- **computer** -enabled attempts have failed. More than 10,000 Peapod customers pay a startup fee of...
... their customers. The reason is simple: convenience and customization. Customers can shop anytime, and their **computerized** shopping selection list "learns" to reflect their buying **preferences** , making it easier to enter their order each time they use the system. Using a...
... based selections, eventually coming up with a preferred shopping list. The customization power of the **computer** is creating the type of unchallenged loyalty that mall-based retailers only dream about. Peapod...
... grown up on the Web. There are independent nonfood companies, called "brokers," that use the **computer** as an ordering mechanism and create orders that print out at supermarket partners. There are...
... with some of their vendors in similar ways, they will have a distinct advantage in **Internet** commerce. Creative partnering ...amounts of unsold inventory. Remember: You don't have to have instantaneous delivery on the
 Internet . As with catalog ordering, customers are willing to wait a week or 10 days, as...
... data structures. Some data structures may need to be extracted and re-created just for **Internet** use. This data manipulation creates additional overhead for the retailer. Customers wanting access to their...
... buying. By the year 2000, an estimated 101 million people will be connected to the **Internet** worldwide. How much bandwidth will the retailer need to conduct business on this scale? Consider...
... s particularly intriguing to all retailers is that approximately 45 million people are using the **Internet** today. And although they are not all shopping, and some are too young to purchase...

24/3,AB,K/27   (Item 27 from file: 88)
DIALOG(R)File 88:Gale Group Business A.R.T.S.
(c) 2004 The Gale Group. All rts. reserv.
04929670   SUPPLIER NUMBER: 21211264
Warmer and more social: recent developments in cognitive social psychology.
Schwarz, Norbert
Annual Review of Sociology, v22, n1, p239(26)
Annual, 1998

ISSN: 0360-0572   LANGUAGE: English   RECORD TYPE: Fulltext; Abstract
WORD COUNT: 12708   LINE COUNT: 01057

AUTHOR ABSTRACT: Since the late 1970s, theorizing in psychological social
psychology has been dominated by the computer metaphor of information
processing models, which fostered an emphasis on "cold" cognition and the
conceptualization of individuals as isolated information processors. More
recent research shows a renewed interest in the interplay of feeling and
thinking in social judgment and in the role of unconscious processes in
reasoning and behavior. Moreover, research into socially situated cognition
and the interplay of communication and cognition highlights the role of
conversational norms, social interdependence, and power in social judgment.
Experimental research into these issues is reviewed. The emerging picture
is compatible with social psychology's latest metaphor, humans as motivated
tacticians who pragmatically adapt their reasoning strategies to the
requirements at hand.
      KEY WORDS: social judgment, social cognition, communication, mood,
motivation

...   predicted that the person is most likely an engineer, independent
of whether the base-rate **probability** for any person in the sample being
an engineer was .30 or .70. These predictions indicate that participants
relied on individuating information of little diagnostic **value** at the
expense of more diagnostic base-rate information, thus violating normative
(Bayesian) models of...
...assumptions, see Gigerenzer 1991). Does this imply, however, that they
did not note that the **personality** sketch provided to them was
uninformative? Or did they draw on this information because they...
...Kahneman & Tversky's (1973) study supports the latter possibility
(Schwarz et al 1991c). When the **personality** description was provided as a
narrative allegedly written by a psychologist, participants again concluded
that...
...was presented as a random sample of information about this person,
allegedly drawn by a **computer** from a larger file assembled by
psychologists, participants relied on the more diagnostic base-rate...
...a guarantee that does not extend to a random sample of information drawn
by a **computer** . Hence, participants tried to make sense of the
personality information provided to them in the former case, but were
happy to ignore it in...

 24/3,AB,K/33   **(Item 33 from file: 16)**
DIALOG(R)File   16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
06570002   Supplier Number: 55475138
Relating brand equity to the likelihood of brand purchase; Rory Morgan
  believes measures of brand loyalty need to track consumers' feelings as
  well as their actions.
Brand Strategy, p10(1)
August 13, 1999
Language: English   Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 2095
TEXT:
...of brand loyalty, ranging from general measures of brand belief, through
measures of liking or **preference** , right up to rigorous purchase intention
protocols. For the behavioural side of loyalty, we have...
...clipboards were invented. All the same, progress has been made, and the
new generation of **computer** -based psychological models has taken us very

close. In developing our own Loyalty Driverssm approach...
...between different components of brand equity, and use these to make good
predictions about the **probability** that a given customer will switch to a
competitor.How do we do this? Well...
...Packard, Quaker Oats, Chevrolet, AT&T etc .However, one might consider
brands such as Apple **Computer** and Versace to have derived their authority
from innovation rather than heritage.(ii) Identification - the convergence
of the brand's **values** with that of the person, and the degree to which
the brand is regarded as...to 'talk down' to the individual. This is an
aspect of the brand's imputed ' **personality** '.Again, we distinguish three
different paths to identification. The first is by bonding, where the brand
is thought to share the same **values** or perspectives as the consumer. This
could be particularly true for fashion brands, such as...
...for consumer perceptions of the 'equity' of the brand in terms of
emotional and functional **characteristics** . However, the total ' **value** ' or
utility of a brand proposition to a consumer must take some account of its...
...Thus far, it could be said that we have simply generated another model
of brand **value** , and failed to make the important connection with brand
choice.How do consumers choose what...
...we need to understand that what drives choice is not the absolute appeal
of a ' **value** proposition' (the management consultancy phrase for a branded
product), but rather its relative appeal when...
...that the relationship between the size of the 'utility gap' between
competing brands, and the **probability** of choosing the more valued brand
(or switching to it), is not linear; and, moreover...
...factors, some attitudinal or psychological in origin, which act to
'inhibit' (but possibly 'promote') the **likelihood** that an individual will
act on their evaluation of product alternatives. We call this the...
...that these factors operate at the individual consumer level.Therefore,
each individual interprets relative brand **values** in the light of their
own constraints.What are they? Well, our work with simulated...this fits
together with functional performance. We understand the relevance of price,
in creating brand **value** .And we understand how relative brand **values**
interact with inertia factors inherent in the category to predict switching
rates. And moreover, we...

```
File 624:McGraw-Hill Publications 1985-2004/Aug 31
File  98:General Sci Abs/Full-Text 1984-2004/Jul
File 482:Newsweek 2000-2004/Aug 31
File  13:BAMP 2004/Aug W4
File  15:ABI/Inform(R) 1971-2004/Aug 31
File 122:Harvard Business Review 1971-2004/Jul
File 476:Financial Times Fulltext 1982-2004/Sep 01
File 623:Business Week 1985-2004/Aug 31
File  20:Dialog Global Reporter 1997-2004/Sep 01
File 369:New Scientist 1994-2004/Aug W4
File 370:Science 1996-1999/Jul W3
Set      Items    Description
S1         854    COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-
                    )()(SYSTEM? ? OR TECHNIQUE? ? OR METHOD? ?)
S2     4491821    ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES
                    OR RATING? ? OR TRAIT? ? OR CHARACTERISTIC? ?
S3     1801198    PROBAB? OR LIKELIHOOD
S4      247572    PERSONALITY OR PERSONALITIES
S5           1    S1(S)S4 [too recent]
S6     1810286    PERSONAL
S7      250986    AUTOMATED
S8     2374347    COMPUTER?
S9     2379214    INTERNET
S10    1963784    COLLABORAT? OR FILTER??? OR RECOMMEND?
S11      17127    S6()S2
S12          4    S1(S)S11 NOT S5
S13          4    RD (unique items) [1 duplicate; 3 not relevant or too recent]
S14        115    (S4 OR S11)(S)S3(S)S10
S15        115    S14 NOT (S5 OR S12)
S16        111    RD (unique items)
S17         54    S16/2001:2004
S18         57    S16 NOT S17
S19          6    S18(S)S7:S9 [not relevant]

File   2:INSPEC 1969-2004/Aug W4
File   6:NTIS 1964-2004/Aug W4
File   7:Social SciSearch(R) 1972-2004/Aug W4
File  11:PsycINFO(R) 1887-2004/May W5
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Aug W4
File  35:Dissertation Abs Online 1861-2004/Jul
File  65:Inside Conferences 1993-2004/Aug W5
File  94:JICST-EPlus 1985-2004/Aug W1
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Jul
File 142:Social Sciences Abstracts 1983-2004/Jul
File 144:Pascal 1973-2004/Aug W4
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 473:FINANCIAL TIMES ABSTRACTS 1998-2001/APR 02
File 475:Wall Street Journal Abs 1973-2004/Aug 31
File 239:Mathsci 1940-2004/Oct
File 202:Info. Sci. & Tech. Abs. 1966-2004/Jul 12
Set      Items    Description
S1        2024    COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-
                    )()(SYSTEM? ? OR TECHNIQUE? ? OR METHOD? ?)
S2     6775841    ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES
                    OR RATING? ? OR TRAIT? ? OR CHARACTERISTIC? ?
S3     1521535    PROBAB? OR LIKELIHOOD
```

S4	393308	PERSONALITY OR PERSONALITIES
S5	4	S1(S)S4
S6	496976	PERSONAL
S7	257099	AUTOMATED
S8	. 3017737	COMPUTER?
S9	236039	INTERNET (January 1995)
S10	1398603	COLLABORAT? OR FILTER??? OR RECOMMEND?
S11	11	S1 AND S4
S12	9	S11/2001:2004
S13	**2**	**S11 NOT S12**
S14	21301	S6()S2
S15	18	(S1 AND S14) NOT S11
S16	14	S15/2001:2004
S17	**4**	**S15 NOT S16**
S18	402	(S4 OR S14) AND S3 AND S10 AND S7:S9
S19	**4**	**S10/TI,DE AND S18 [too recent]**
S20	401	S18 NOT (S11 OR S15)
S21	396	RD (unique items)
S22	286	S21/2001:2004
S23	110	S21 NOT S22
S24	0	S1 AND S23
S25	109	(S4 OR S14)(S)S3(S)S10
S26	**5.**	**S23 AND S25**
S27	103	S25 NOT (S11 OR S15 OR S26)
S28	23	S27/2001:2004
S29	80	S27 NOT S28
S30	65	RD (unique items)
S31	. 65	Sort S30/ALL/PY,A

13/7,K/1   (Item 1 from file: 11)
DIALOG(R)File 11:PsycINFO(R)

0001616200   1998-10886-001
**Internet paradox: A social technology that reduces social involvement and
  psychological well-being?**
AUTHOR: Kraut, Robert; Patterson, Michael; Lundmark, Vicki; Kiesler, Sara;
  Mukophadhyay, Tridas; Scherlis, William
AUTHOR AFFILIATION: Carnegie Mellon U, Human Computer Interaction Inst--
  Pittsburgh--PA--US
JOURNAL: American Psychologist--http://www.apa.org/journals/amp.html, Vol
53(9), 1017-1031, Sep, 1998
PUBLISHER: American Psychological Assn--US--http://www.apa.org

ABSTRACT: journal abstract- The Internet could change the lives of average
  citizens as much as did the telephone in the early part of the 20th
  century and television in the 1950s and 1960s. Researchers and social
  critics are debating whether the Internet is improving or harming
  participation in community life and social relationships. This research
  examined the social and psychological impact of the Internet on 169
  people in 73 households during their first 1 to 2 years on-line. We used
  longitudinal data to examine the effects of the Internet on social
  involvement and psychological well-being. In this sample, the Internet
  was used extensively for communication. Nonetheless, greater use of the
  Internet was associated with declines in participants' communication with
  family members in the household, declines in the size of their social
  circle, and increases in their depression and loneliness. These findings
  have implications for research, for public policy, and for the design of

technology. (PsycINFO Database Record (c) 2003 APA, all rights reserved)
CITED REFERENCES:
...Resnick, P. & Varian, H. (1997). **Recommender systems** : Introduction
   to the special section. Communications of the ACM, 40, 56-58...
...Cutrona, C. (1980). The revised UCLA loneliness scale: Concurrent and
   discriminant validity evidence. Journal of **Personality** and Social
   Psychology, 39, 472-480. (PsycINFO Accession Number: 1981-24820-001)...

17/7,K/1   (Item 1 from file: 2)
DIALOG(R)File   2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.
6288042   INSPEC Abstract Number: C1999-08-7250R-011
   *Title: Collaborative   filtering using weighted majority prediction
algorithms*
   Author(s): Nakamura, A.; Abe, N.
   Author Affiliation: C&C Media Res. Labs., NEC Corp., Kawasaki, Japan
   Conference   Title: Machine   Learning.   Proceedings   of   the   Fifteenth
International Conference (ICML'98)   p.395-403
   Editor(s): Shavlik, J.
   Publisher: Morgan Kaufmann Publishers, San Francisco, CA, USA
   Publication Date: 1998 Country of Publication: USA   x+580 pp.
   Material Identity Number: XX-1998-02164
   Conference Title: Proceedings of Machine Learning (ICML-98)
   Conference Date: 24-27 July 1998   Conference Location: Madison, WI, USA
   Language: English   Document Type: Conference Paper (PA)
   Treatment: Practical (P)
   Abstract: We   apply   various   generalizations   of   weighted   majority
prediction algorithms for on-line prediction of binary relations to the
problem of predicting **personal   preferences** over information contents,
which is a key issue in **collaborative   filtering** . Note that the
 collaborative   filtering problem can be cast as learning a binary
relation between the users (as the rows) and the contents (as the columns).
The original prediction algorithm of Goldman and Warmuth (1995) makes its
prediction by majority voting by the rows with observed data in the same
column, weighted by the believed similarity between the rows. We propose a
generalization G-Learn-Relation of their algorithm to the multi-valued
setting, and empirically demonstrate that it performs better than existing
filtering methods based on correlation coefficients, both on simulated and
real data. The performance comparison was done in terms of the total number
of prediction mistakes and the measures of precision and recall.
Additionally, we propose a version of G-Learn-Relation that makes use of
indirect evidence available as believed similarity between other rows, and
another version in which both row similarity and column similarity are used
for prediction. In both cases, significant improvement was observed in
experiments involving simulated data. Finally, we give a theoretical
performance guarantee for G-Learn-Relation in terms of an upper bound on
the worst case number of mistakes, which together with a lower bound on the
number of mistakes made by a correlation-based method establishes that its
worst case performance is better than the correlation-based methods.(9 Refs)
   Subfile: C   Copyright 1999, IEE
   Identifiers: **collaborative   filtering** ; ...
... **personal   preference** ;

17/7,K/2   (Item 1 from file: 11)
DIALOG(R)File   11:PsycINFO(R)
(c) 2004 Amer. Psychological Assn. All rts. reserv.

·0001767158   2001-14331-003
User modeling for adaptive news access.
AUTHOR: Billsus, Daniel; Pazzani, Michael J.
AUTHOR AFFILIATION: U California, Dept of Information & Computer Science--
    Irvine--CA--US
JOURNAL: User Modeling & User-Adapted Interaction--
http://www.wkap.nl/journalhome.htm/0924-1868, Vol 10(2-3), 147-180, 2000
PUBLISHER: Kluwer Academic Publishers--Netherlands--http://www.wkap.nl
ABSTRACT: Presents a framework for adaptive news access, based on machine
    learning techniques specifically designed for this task. The interface
    and design of 2 deployed news agents that are part of the described
    architecture are presented. While the 1st agent provides personalized
    news through a web-based interface, the 2nd system is geared towards
    wireless information devices, such as personal digital assistants, and
    cell phones. Based on implicit and explicit user feedback, the agents use
    a machine learning algorithm to induce individual user models. The
    system's performance, based on data collected from regular system users,
    is empirically evaluated. The results provide empirical evidence for the
    utility of the hybrid user model, and suggest that effective
    personalization can be achieved without requiring any extra effort from
    the user. (PsycINFO Database Record (c) 2003 APA, all rights reserved)
CITED REFERENCES:
...A., Miranda, T., Murnikov, P., Netes, D. and Sartin, M.: 1999, Combining
    content-based and **collaborative filters** in an online newspaper. ACM
    SIGIR Workshop on **Recommender Systems** , Berkeley, CA...
...Sakagami, H. and Kamba, T.: 1997, Learning **personal preferences** on
    online newspaper articles from user behaviors. Proceedings of the Sixth
    International World Wide Web...

  17/7,K/4   (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.
04595305   JICST ACCESSION NUMBER: 00A0394244   FILE SEGMENT: JICST-E
Proposal of TV Program Recommendation   Method based on Reinforcement
    Learning in Regional Society and Initial Evaluation.
KINONE TOMOYA (1); ISHITANI NORIHIKO (1); TANO SHUN'ICHI (1)
(1) Univ. of Electro-Communications, Grad. Sch.
Faji Shisutemu Shinpojiumu Koen Ronbunshu, 1999, VOL.15th, PAGE.767-770,
    FIG.5, TBL.1
JOURNAL NUMBER: L0486AAL   ISSN NO: 1341-9080
UNIVERSAL DECIMAL CLASSIFICATION: 621.397+654.197
LANGUAGE: Japanese   COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Conference Proceeding
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: In the near future, TV will be totally digitized and deeply
    combined with the information systems such as the personal computers.
    In this paper, first, we analyze what functions are needed and what
    kind of problems must be coped with. Based on the analysis, we propose
    a new method to estimate the **personal preference** of digital TV
    viewers. We testified to validity of the new method. (author abst.)

  26/6/1   (Item 1 from file: 2)
5706880   INSPEC Abstract Number: C9711-7330-112
  Title: Nonparametric resampling and modelling procedure for testing
circannual markers of depressive disorders

Publication Date: 1997

26/6/2   (Item 1 from file: 6)
1934701 NTIS Accession Number: AD-A299 967/0
  **Decision Modeling of Psychological and Clinical Factors in Assessing
Treatment Alternatives for Lobular Carcinoma in Situ**
  (Annual rept. 1 Aug 94-31 Jul 95)
  31 Aug 95

26/6/3   (Item 1 from file: 7)
02890105   Genuine Article#: UH965   Number of References: 49
**Title: THE RISKY AND PROTECTIVE MOTORCYCLING OPINIONS AND BEHAVIORS OF
    YOUNG ON-ROAD MOTORCYCLISTS IN NEW-ZEALAND** (Abstract Available)
  1996

26/6/4   (Item 1 from file: 11)
0001133994   1991-03239-001
**Statistical power of psychological research: What have we gained in 20
  years?**
1990

26/6/5   (Item 1 from file: 35)
1045354 ORDER NO: AAD89-02496
**PERCEPTUAL AND COGNITIVE FACTORS IN OBSESSIVE-COMPULSIVE BEHAVIOR AND THE
DEVELOPMENT OF A** COMPUTER **MOUNTED** PERSONALITY **INSTRUMENT**
  Year: 1988

```
File    6:NTIS 1964-2004/Aug W4
File    7:Social SciSearch(R) 1972-2004/Aug W4
File   11:PsycINFO(R) 1887-2004/May W5
File   34:SciSearch(R) Cited Ref Sci 1990-2004/Aug W4
File   35:Dissertation Abs Online 1861-2004/Jul
File   65:Inside Conferences 1993-2004/Aug W5
File   94:JICST-EPlus 1985-2004/Aug W1
File  142:Social Sciences Abstracts 1983-2004/Jul
File  144:Pascal 1973-2004/Aug W4
File  434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File  473:FINANCIAL TIMES ABSTRACTS 1998-2001/APR 02
File  475:Wall Street Journal Abs 1973-2004/Aug 30
File  239:Mathsci 1940-2004/Oct
Set      Items    Description
S1        1607    COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-
                  )()(SYSTEM? ? OR TECHNIQUE? ? OR ALGORITHM? ? OR METHOD?)
S2     3077650    ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES
                  OR RATING? ?
S3      803495    PROBABILIT? OR PROBABILISTIC? OR LIKELIHOOD
S4      385391    PERSONALITY
S5        6596    BROWSER? ?
S6          33    S1 AND S2 AND S3
S7          27    RD (unique items)
S8          20    S7/2001:2004
S9           7    S7 NOT S8
S10          7    Sort S9/ALL/PY,A
S11          3    S1(S)S4
S12          3    S11 NOT S6
S13          3    RD (unique items) [too recent]
S14        418    S1 AND S2
S15         64    S1 AND S3
S16       4136    S2 AND S3 AND S4
S17          6    S4 AND S14
S18          3    S17 NOT (S6 OR S11)
S19          3    RD (unique items) [too recent]
S20          1    S15 AND S4 [too recent]
S21          4    S5 AND S16 [too recent]
```

10/6/3   (Item 3 from file: 144)
  12870338   PASCAL No.: 97-0130693
  Magnitude of type I error when single-locus linkage analysis is maximized over models : A simulation study
  1997

 10/7/4   (Item 4 from file: 7)
DIALOG(R)File   7:Social SciSearch(R)
(c) 2004 Inst for Sci Info. All rts. reserv.
03205915   Genuine Article#: ZY292   Number of References: 57
Title: Exploring versus exploiting when learning user models for text recommendation
Author(s): Balabanovic M (REPRINT)
Corporate Source: STANFORD UNIV,DEPT COMP SCI/STANFORD//CA/94305 (REPRINT)
Journal: USER MODELING AND USER-ADAPTED INTERACTION, 1998, V8, N1-2, P 71-102
Publisher: KLUWER ACADEMIC PUBL, SPUIBOULEVARD 50, PO BOX 17, 3300 AA DORDRECHT, NETHERLANDS

Language: English   Document Type: Article

Abstract: The text recommendation task involves delivering sets of
    documents to users on the basis of user models. These models are
    improved over time,. given feedback on the delivered documents. When
    selecting documents to recommend, a system faces an instance of the
    exploration/exploitation tradeoff. whether to deliver documents about
    which there is little certainty, or those which are known to match the
    user model learned so far. In this paper, a simulation is constructed
    to investigate the effects of this tradeoff on the rate of learning
    user models, and the resulting compositions of the sets of recommended
    documents, in particular World-Wide Web pages. Document selection
    strategies are developed which correspond to different points along the
    tradeoff. Using an exploitative strategy, our results show that simple
    preference functions can successfully be learned using a vector-space
    representation of a user model in conjunction with a gradient descent
    algorithm, but that increasingly complex **preference** functions lead to
    a slowing down of the learning process. Exploratory strategies are
    shown to increase the rate of user model acquisition at the expense of
    presenting users with suboptimal recommendations; in addition they
    adapt to user **preference** changes more rapidly than exploitative
    strategies. These simulated tests suggest an implementation for a
    simple control that is exposed to users, allowing them to vary a
    system's document selection behavior depending on individual
    circumstances.

10/7/5   (Item 5 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
01809061 ORDER NO: AADAA-I9936993
Probabilistic   preference   modeling
     The first part of this dissertation addresses the general setup where
a set of items is partially evaluated by a set of judges, in the sense that
not every item is evaluated by every judge. For this setup, the
collaborative filtering problem is to predict the missing evaluations
from the observed evaluations. As opposed to current **collaborative**
filtering solutions based on classical statistical methods such as linear
correlation, a **Bayesian** solution is proposed. The main idea is to model
subjects' **ratings** as realizations of a **probability** distribution which
captures similarity across items and individuals. Data is then used to
obtain posterior distributions which can be explored using Markov chain
Monte Carlo (MCMC) methods such as the Gibbs sampler and the reversible
jump Metropolis-Hastings algorithms. One important advantage of the
Bayesian approach is the robustness to different patterns of missingness in
the item-judge evaluations.
     The second part of this dissertation addresses consumers' shopping
preferences in retail stores. Manufacturers and retailers alike are
interested in the link between the selection of a particular brand by a
shopper and any resulting impact on store performance. Unfortunately, the

best developed tools for analyzing retail sales data focus on the relationship between a brand's marketing activity and the sales of that brand itself, or, possibly, other brands in the category. We propose to establish a link between the selection of a particular brand and the size and **value** of the marketbasket containing that brand, statistics more closely related to store performance. In addition we offer an alternative to the model of random inclusion of items in marketbaskets implicitly used by industry today. The alternative model of random inclusion is used as a benchmark against which to compare the observed average **value** of marketbaskets containing a particular brand. To assess the contrasts between the brand choices and random choices in terms of basket **values**, we decompose the gap between observed marketbasket **value** and model-defined expected marketbasket **value** into quantity synergy (the dollar **value** of the brand's propensity to occur in baskets with more items than expected) and price synergy (the dollar **value** of the brand's propensity to occur in baskets with more expensive items than expected).

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File  16:Gale Group PROMT(R) 1990-2004/Aug 31
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2004/Aug 31
File  47:Gale Group Magazine DB(TM) 1959-2004/Aug 31
File 621:Gale Group New Prod.Annou.(R) 1985-2004/Aug 31
File  88:Gale Group Business A.R.T.S. 1976-2004/Aug 30
File  75:TGG Management Contents(R) 86-2004/Aug W4
File 275:Gale Group Computer DB(TM) 1983-2004/Aug 31
File 674:Computer News Fulltext 1989-2004/Aug W3
File 647:CMP  Computer Fulltext 1988-2004/Aug W4
```

Set	Items	Description
S1	1749	COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-)()(SYSTEM? ? OR TECHNIQUE? ? OR ALGORITHM? ? OR METHOD?)
S2	4872331	ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES OR RATING? ?
S3	290281	PROBABILIT? OR PROBABILISTIC? OR LIKELIHOOD
S4	182554	PERSONALITY
S5	361849	BROWSER? ?
S6	9	S1(S)S2(S)S3
S7	**5**	**RD (unique items)**
S8	553	S1(S)S2
S9	20	S1(S)S3
S10	154	S2(S)S3(S)S4
S11	0	S4(S)S8
S12	11	S9 NOT S6
S13	**5**	**RD (unique items)**
S14	130	RD S10 (unique items)
S15	0	S1 AND S14
S16	26	S14/2001:2004
S17	104	S14 NOT S16
S18	0	S17 AND S5
S19	17	S4/TI,DE AND S17
S20	17	S19 NOT (S6 OR S9)
S21	17	RD (unique items)
S22	**17**	**Sort S21/ALL/PD,A [not relevant]**

7/7/2   (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
04375261   Supplier Number: 46416378   (THIS IS THE FULLTEXT)
**Internet Capital Group announces Venture Funding Agreement with Empirical
  Media to launch WiseWire Web Service.**
Business Wire, p5281026
May 28, 1996
TEXT:
PITTSBURGH--(BUSINESS WIRE)--May 28, 1996--The Internet Capital Group, a
venture subsidiary of Safeguard Scientifics, announced Tuesday an agreement
to provide venture capital to Empirical Media, which is launching
WiseWire(SM), a new online filtering service that organizes and delivers a
super-personalized stream of information from the Internet and thousands of
other online sources.
    WiseWire, the world's first Smart Internet Filter, will be formally
released in the third quarter of this year.
    "We are extremely excited to be working with Safeguard Scientifics,"
said Ken Lang, Empirical Media's founder and chief executive officer, who
built the original prototype of WiseWire in connection with his Ph.D. work

at Carnegie Mellon University.

"Our partners at Safeguard Scientifics have been extremely successful in bringing next generation technologies to market, and with their guidance I am confident WiseWire will get the widest possible exposure."

"What appealed to us most about WiseWire is its uniqueness," said Walter Buckley, president of the Internet Capital Group. "No other technology comes close to providing WiseWire's quality of filtering services. This literally has the potential to redefine how the Internet is used."

Empirical Media developed WiseWire to solve the problem of information overload for people who gather information from online sources. WiseWire's intelligent agents continuously filter the World Wide Web, Usenet newsgroups and many other online sources for information applicable to each of its users.

In addition, as a Smart Internet Filter, WiseWire dynamically adapts to meet each user's areas of interest while they use the system. Users retrieving information in WiseWire's Web service click on a simple **rating** bar to state their opinions about whether an article read was of interest or not. As the users' interests evolve, the WiseWire filtering technology is able to recognize this and update the online information accordingly.

The quality of WiseWire information is also driven by the **preferences of others who typically share common opinions**, a process called **collaborative filtering**. The first readers of a document help judge its **value** for later readers, with a far greater **likelihood** that unappealing content will be filtered before it is presented to a user.

In effect, WiseWire provides superior online information because of the recommendations of a community of Web users.

"WiseWire uses the latest developments in machine learning to continually adapt to users' preferences, so it can deliver information of greater interest each time they use the system," said Empirical Media's Lang. "The ability to dynamically meet the interests of its users can personalize the Internet for each individual, while the combination of adaptive and collaborative filtering provides the highest quality of online information available."

Empirical Media also announced a new strategic partnership with SmithKline Beecham Consumer Healthcare, one of the world's leading healthcare companies. As part of the alliance, SmithKline Beecham will purchase advertising on the WiseWire Web site, and Empirical Media will provide online technical and business services to SmithKline Beecham.

The Internet Capital Group, a subsidiary of Wayne, Pa.-based Safeguard Scientifics, invests in companies in the burgeoning online and Internet marketplace. Safeguard Scientifics is publicly traded and offers its shareholders rights to acquire stock at the initial offering price when its companies go public.

Notable IPOs for Safeguard Scientifics include Novell, QVC and Cambridge Technology Partners.

Empirical Media Corp., headquartered in Pittsburgh, is the leader in Collective Intelligence Technology and the developer of WiseWire, the world's first Smart Internet Filter.

CONTACT: Empirical Media
Mark Limbach, 412/688-8870, ext. 118
mlimbach@empirical.com
or
RMR & Associates, Inc.
Catherine Canterbury, press liaison, 301/217-0009

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7/3,AB,K/5   (Item 3 from file: 88)
DIALOG(R)File   88:Gale Group Business A.R.T.S.
(c) 2004 The Gale Group. All rts. reserv.
04759447   SUPPLIER NUMBER: 20561632
Creating a custom-mass production channel on the Internet.
Elofson, Greg; Robinson, William N.
Communications of the ACM, v41, n3, p56(7)
March, 1998
ISSN: 0001-0782   LANGUAGE: English   RECORD TYPE: Fulltext; Abstract
WORD COUNT: 3884   LINE COUNT: 00329

ABSTRACT: Advances in information technology, particularly the Internet,
have allowed sellers to provide buyers with custom-made goods at prices
comparable with generic products. However, a custom-mass production
framework that creates greater economies of scale compared with the
supplier-driven approach is developed. In this framework, like-minded
buyers are formed to create a market. Afterwards, these buyers agree upon a
common set of product attributes. Finally, these attributes are
communicated to the suppliers.
...   costs while employing methods for finding like-minded buyers
generally fall under the aegis of **collaborative filtering** (see the
March 1997 Communications). **Collaborative filtering** entails the use of
various **attributes**, often represented as weighted **attribute - value**
vectors, that are used to place individuals in groups with similar tastes
and/or **preferences**. Products and services that interest one member of a
group are seen as having a better-than-chance **probability** of interesting
the remaining members of that group.
      For example, Firefly (9) uses collaborative filtering...

13/7/1   (Item 1 from file: 16)
DIALOG(R)File   16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
06633797   Supplier Number: 55746809   (THIS IS THE FULLTEXT)
**New news technology.(Autonomy's Content Server content-personalization
   solution)(Product Information)**
Gunnerson, Gary
PC Magazine, p98
Oct 5, 1999
TEXT:
While content sites continue to build new services based on keywords or
collaborative filtering, other companies are conjuring up new ways of
anticipating more accurately what information you need. Per haps the most
promising technology comes from Autonomy, which has devised a method of
extracting concepts from content by using statistical **probabilities** and
pattern matching. Autonomy evaluates personal profiles, content, and
queries in the same manner. It then compares the extracted concepts and
provides relevant content matches.
      LineOne, the online outlet of Rupert Murdoch's News Corp., showcases
Autonomy's technology. As you view a news story, LineOne uses Autonomy's
Content Server and dynamically generates links to related stories. This
feature works much like Alexa Internet parts of which are now included in
the most recent versions of browsers from Microsoft and Netscape but unlike
Alexa, which relies on a predefined database of related sites, Autonomy
generates its list of links in real time.
      If you frequently track specific subjects, you can train LineOne

agents to gather all related stories by typing in a sentence or series of
words. When you invoke your agent by clicking on its link, Autonomy
presents a list of hyperlinks. At first glance, we found that many document
titles seemed unrelated, because Autonomy searches according to concept
rather 'than just the keyword. On closer examination, we found Autonomy to
be uncannily accurate. Expect to see many other content-based sites adopt
Autonomy in the near future, including Associated Press, BBC, Reuters Plus,
and Xoom.

Unlike Autonomy, which can be more easily grafted onto an existing
Web site, some content-personalization packages require a little more work
and a larger commitment. Examples include Broad Vision's One-To-One line
and Vignette's StoryServer, which are both touted as complete solutions for
Internet Relationship Management. These products not only seek to deliver
customized content to Web site visitors, they also help their customers
make business decisions by providing an environment for managing content,
exchanging content with partners, and analyzing behavior of site visitors.
To see Vignette's StoryServer in action, check out Atevo Travel, the
Chicago Tribune, or our own ZDNet site. The Milwaukee Journal Sentinal's
City Pages Plus is a good example of BroadVision's One-to-One solution.

Eventually, content-personalization tools will grow so advanced that
they will become transparent. You'll simply see the information that you
need or that interests you as you jump around the Web. Although the Web
continues to grow at a mind-boggling rate, this technology will help ensure
that it feels like home to you.

13/7/2   (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
09059646   SUPPLIER NUMBER: 18812229
**Improbable inspiration. (use of the Bayesian networks concept by Microsoft
  for software development) (Technology Information)**
Helm, Leslie; Burns, Robert
Los Angeles Times, v115 , Mon ed, col 1, pD1
Oct 28, 1996

13/3,AB,K/3   (Item 1 from file: 47)
DIALOG(R)File 47:Gale Group Magazine DB(TM)
(c) 2004 The Gale group. All rts. reserv.
04699321   SUPPLIER NUMBER: 19168003   (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Future agent software. (intelligent software promises to personalize
  Web) (Looking Forward: Technology on the Way) (Technology
  Information) (Cover Story)**
Dragan, Richard V.
PC Magazine, v16, n6, p190(2)
March 25, 1997
DOCUMENT TYPE: Cover Story   ISSN: 0888-8507   LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 1121   LINE COUNT: 00091
ABSTRACT: Intelligent agent software promises to transform future user
interaction with the Web by providing highly personalized content. The most
sophisticated agents can learn by following the user's examples, watching a
browsing session and locating specific information on the basis of what a
user might be interested in. 'Spider agents' are already common and are
used in search engines. Collaborative filtering, a new technology developed

by Firefly and Net Perceptions, offers a productive model for filtering requests based on how closely data matches defined user preferences. Anchored agents work primarily on either the client or server side; mobile agents are more complex and more promising because they can move among servers to locate what they need. General Magic pioneered the mobile-agent approach in its Telescript environment. Mobile agents are currently used on intranets, but standards will have to be defined before they can be used on the public Internet.
...   expectations.

    The next generation of applied research--in the form of agents--has a greater **likelihood** of success, because it involves new models of computer "intelligence." New technologies such as **collaborative filtering** (developed by Firefly and Net Perceptions) offer a productive model that fits within an extraordinary...

...such as books and CDs) or content (such as news stories) can be ascertained with **collaborative filtering** .

    Where the older AI technology tried to make computers think like people (which had only...

```
File 624:McGraw-Hill Publications 1985-2004/Aug 30
File  98:General Sci Abs/Full-Text 1984-2004/Jul
File 482:Newsweek 2000-2004/Aug 24
File  13:BAMP 2004/Aug W4
File  15:ABI/Inform(R) 1971-2004/Aug 31
File 122:Harvard Business Review 1971-2004/Jul
File 476:Financial Times Fulltext 1982-2004/Aug 31
File 623:Business Week 1985-2004/Aug 30
File  20:Dialog Global Reporter 1997-2004/Aug 31
Set      Items    Description
S1         858    COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-
                  )()(SYSTEM? ? OR TECHNIQUE? ? OR ALGORITHM? ? OR METHOD?)
S2     4237061    ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES
                  OR RATING? ?
S3      263225    PROBABILIT? OR PROBABILISTIC? OR LIKELIHOOD
S4      171038    PERSONALITY
S5      137925    BROWSER? ?
S6           4    S1(S)S2(S)S3
S7           4    RD (unique items) [1 duplicate; 3 not relevant or too recent]
S8         242    S1(S)S2
S9           6    S1(S)S3
S10         84    S2(S)S3(S)S4
S11          2    S9 NOT S6
S12          2    S8(S)S4:S5
S13          0    S1 AND S10
S14         19    S10/TI,DE,AB
S15         19    S14 NOT (S6 OR S9 OR S12)
S16         18    RD (unique items)
S17          5    S16/2001:2004
S18         13    S16 NOT S17
S19         13    Sort S18/ALL/PD,A
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11/3,AB,K/2       (Item 2 from file: 15)
DIALOG(R)File  15:ABI/Inform(R)
(c) 2004 ProQuest Info&Learning. All rts. reserv.
01725564  03-76554
```
Reading your mind, reaching your wallet
Lach, Jennifer
American Demographics v20n11 PP: 39-42 Nov 1998 ISSN: 0163-4089
JRNL CODE: ADE
WORD COUNT: 1355

ABSTRACT: As the online shopping mall continues to add new stores, many of
the Web's top retailers are banking on real-time personal recommendations
to convert lookers into loyal repeat buyers. Amazon.com, Barnes & Noble,
Moviefinder, CDnow, and others tailor targeted suggestions to their
customers. In a recent study of 25 online merchants by Jupiter
Communications, 40% said they already use recommendation technology at
their Web sites; 93% of those that currently do not plan to add the
application within the next year. Suggestive selling, Jupiter posits, could
contribute 34% of total sales revenues within the first year of
implementation. Pumping out these recommendations is a technology called
collaborative filtering, which looks at individual consumers'
behavioral data to predict the future behavior of like-minded people.
Collaborative filtering sharpens its suggestions - and increases the
likelihood of a sale - as it learns more about the customer.

12/3,AB,K/1   (Item 1 from file: 20)
DIALOG(R)File   20:Dialog Global Reporter
(c) 2004 The Dialog Corp. All rts. reserv.
03039160
Net Perceptions Now the Single Source for All Internet Personalization Needs
PR NEWSWIRE
October 07, 1998
JOURNAL CODE: WPRW   LANGUAGE: English   RECORD TYPE: FULLTEXT
WORD COUNT: 769
     New Product Breakthroughs Bolster Industry Leader's Track Record of
Firsts While Launching the Next Generation of Recommendation Solutions NEW
YORK, Fall Internet World '98, Oct. 7 /PRNewswire/ -- With its new
generation of Internet personalization products, Net Perceptions(TM) is
providing the industry's first multi-technology Realtime **Recommendation**
Platform, allowing companies to meet all of their recommendation needs from
a single reliable. source -- a record-setting first for online technology.
"Internet marketers are seeing realtime **recommendation technologies** as
essential for building rewarding, enduring one-to-one relationships with
their customers," said Steve Larsen, Net Perceptions VP of Marketing and
Business Development. "And now, they can get the optimum technology for
every recommendation and personalization task from a single, reliable
source." Industry watchers agree. Allen Bonde, director of advisory
services at The Extraprise Group said, "After a couple of years in the
background, personalization is ready for primetime. But a key to mainstream
adoption is recognizing that one size does not fit all. That's why an
integrated approach such as Net Perceptions' Realtime Recommendation
Platform makes so much sense, and offers to bring the benefits of
personalization to the complete Internet customer lifecycle." Three New
Product Releases Net Perceptions for E-commerce 4.0 A true 24x7
enterprise-class solution for personalizing recommendations to each
customer's individual wants, needs and preferences. This personalization
turns browsers into buyers, increases cross-sells and up-sells, and builds
customer loyalty. Performance and scalability 10 times greater than that of
any competitive product, and new features allow an unprecedented level of
application customization. Net Perceptions customers can now stand out by
doing business their own special way. The product can be deployed and
measurably increase sales and profits in under a week. Net Perceptions for
Ad Targeting This new product increases Web site advertising revenues by
delivering higher click-through rates and a lower cost per click for
advertisers. The product automatically puts the right ads in front of the
right site visitors by **learning about the individual interests and tastes
of every visitor.** Ad targeting becomes increasingly intelligent over time,
as more is learned about each visitor with every visit. The result is
increasingly rewarding long-term relationships between sites and their
advertisers. It is the only product that can be deployed and measurably
improve ad targeting in less than 24 hours. This product has its origins in
a relationship Net Perceptions formed earlier this year with Neural
Technologies Corporation. Net Perceptions Recommendation Engine 4.0
Designed to increase visitor frequency and loyalty for Web sites focused on
content delivery, community building or brand building. The engine does
this by continually learning more about the individual interests and tastes
of each site visitor with every visit and by dynamically separating the
wheat from the chaff based on that knowledge. Every time they come back,
visitors see more of what matters to them and less of what doesn't. This
personalization streamlines navigation and increases the site's relevancy
to each visitor. Additional Release by Year's End Net Perceptions for Call

Centers. Personalized realtime cross-sell and up-sell recommendations to
increase inbound and outbound sales and profits while deepening customer
relationships. Internet World Fall Located at Internet World Fall's Booth
#2705, Net Perceptions will preview for press and trade show audiences its
three new products: Net Perceptions for E-Commerce Version 4.0, Net
Perceptions for Ad Targeting, and Net Perceptions Recommendation Engine
4.0. About Net Perceptions Incorporated in 1996, Net Perceptions is now the
world's preeminent developer and supplier of realtime recommendation
technologies. It is the originator of online **collaborative filtering**
technology, the most accurate predictor of individual behavior available.
Also the originator of the Realtime Recommendation Platform, which integrates
collaborative filtering, neural network, fuzzy logic and genetic algorithm
technologies, and automatically applies the optimum technology to whatever
recommendation or personalization task is at hand. Net Perceptions' founders
include the original team of University of Minnesota researchers who
pioneered the concepts and applications of **collaborative filtering** and lead
programmers from supercomputer maker Cray Research. Net Perceptions has a
customer base more than 10 times larger than its closest competitor. It
includes Internet innovators Amazon.com, ARTUFRAME, Audio Book Clubs,
Billboard Talent Net, CDnow, E!Online, iVillage, Musicmaker.com, Let's Eat
Out, N2K's Music Boulevard, Planet Direct, Speed Serve, Spinners.com,
Soundstone and Ticketmaster Online. Net Perceptions has received financial
backing from Hummer Winblad, JAPCO, London Pacific Life and Annuity, Saint
Paul Venture Capital Inc., and Paul Allen's investment group, Vulcan
Ventures, Inc. Net Perceptions can be reached by calling 1-800-466-0711 or
on the World Wide Web at http://www.netperceptions.com./CONTACT: Taylor Allis
of Alexander Communications, Inc., 303-615-5070, tallis@alexandercom.com, for
Net Perceptions; or Net Perceptions Booth # 2705, Internet World Fall '98,
Oct. 7-9/ 11:47 EDT

 12/3,AB,K/2   **(Item 2 from file: 20)**
DIALOG(R)File 20:Dialog Global Reporter
(c) 2004 The Dialog Corp. All rts. reserv.
03039153
**Net Perceptions Announces Enterprise-Class, Real-Time Recommendation Engine
    for E-Commerce**
PR NEWSWIRE
October 07, 1998
JOURNAL CODE: WPRW   LANGUAGE: English   RECORD TYPE: FULLTEXT
WORD COUNT: 932
     Net Perceptions For E-Commerce 4.0 Features Mission-Critical 24x7
Operations, Plus New Personalization Tools to Increase Cross-Sells,
Up-Sells and Repeat Sales NEW YORK, Fall Internet World '98, Oct. 7
/PRNewswire/ -- Today, Net Perceptions, Inc., announces Net Perceptions for
E-Commerce 4.0. Based on the latest generation of the world's most widely
deployed real-time recommendation engine, CDnow and BrainPlay.com will be
among the first companies to deploy the product. "It works like a seasoned
sales pro," said Steve Larsen, Net Perceptions' vice president of marketing
and business development. "It continually learns more about each customer's
individual wants, needs and preferences, and automatically makes
personalized, one-to-one recommendations accordingly." "CDnow has been a
long-time user of Net Perceptions' personalization products. We believe
that our newest personalized pages, My CDnow, with the aid of Net
Perceptions' software, is revolutionizing E-Commerce," said Mike Krupit,
vice president of CDnow. "The functionality in Net Perceptions for
E-Commerce 4.0 will make it even easier for us to develop and deploy this

essential technology on our standard setting site." With a customer base more than 10 times larger than its closest competitor, Net Perceptions is the de facto industry standard for personalized Internet marketing. The company's customers include e-commerce leaders such as Amazon.com, BrainPlay.com, CDnow, Music Boulevard and Ticketmaster Online. For them, Net Perceptions' real-time recommendation technology is seen as an essential strategic tool. "As we approach the important holiday shopping season, it was critical for us to employ personalization technology to help parents and families make informed decisions about gifts for the children in their lives," said Srikant Srinivasan, president and CEO of BrainPlay.com. "Net Perceptions for E-Commerce 4.0 met all of our needs, and will certainly help gift-givers make informed choices that will bring smiles to kids' faces during the holidays." Turn browsers into buyers. The application automatically engages customers in a meaningful dialog, making highly personalized recommendations from the first visit. Increase cross-sell and up-sell. All recommendations are dynamically personalized to each customer's individual wants, needs and preferences. Build customer loyalty. The ever-increasing personalization of the recommendations deepens each customer's relationship with every transaction. "Today, no Internet commerce venture can compete without real-time recommendation technology -- and no other real-time recommendation solution can compete with Net Perceptions for E-commerce 4.0," said Steven Snyder, Net Perceptions' president and CEO. "It is our most advanced solution to date, combining enterprise class 24x7 operations, dramatic new performance enhancements and many new recommendation capabilities -- it is a generation beyond any other solution." Net Perceptions for E-Commerce 4.0 provides a new level of application customization, fine-tuning and flexibility, giving every Net Perceptions customer the ability to stand out from the competition by doing business their own special way. The product can be deployed and measurably increase sales within a week, building customer loyalty with every transaction. "Net Perceptions for E-Commerce 4.0 provides a technology framework for the loyalty-building strategies central to ecommerce success. Organic has pushed the personalization envelope and coaches our Fortune 1000 clients on the ROI of personalization," said Gregory Wester, corporate director of specialized practices at Organic. Key Features in Net Perceptions for E-Commerce version 4.0: Enterprise-class 24x7 operations: Dramatic new performance levels and mission-critical reliability with no need to shut down for routine maintenance. Support for commercial enterprise databases: native for Oracle, Sybase and SQL server; ODBC for others. Rapid deployment and fast ROI: Net Perceptions' APIs are so streamlined that the application can be deployed and measurably increase sales and profits in well under a week. Serendipity control: Allows for highly precise recommendations that account for regional preferences, seasonal popularity and other environmental factors. New algorithm platform. Every Net Perceptions customer now has the ability to stand out from other Internet marketers. New features provide a level of application customization, fine-tuning and flexibility. Easy integration with major platforms. Net Perceptions for E-commerce 4.0 can be deployed from within the platform framework of the most important site building platforms: Broadvision One-to-One, Cold Fusion, IBM NET.Commerce, Microsoft Site Server 3.0 Commerce Edition and Vignette Story Server. Internet World Fall Located at Internet World Fall's Booth #2705, Net Perceptions will preview Net Perceptions for E-Commerce 4.0 for press and trade show audiences. Net Perceptions will also be showcasing customer implementations including BrainPlay.com's new recommendation center. Net Perceptions for E-Commerce 4.0 will be available November 30. About Net Perceptions Incorporated in

1996, Net Perceptions, Inc. is the world's preeminent developer and leading supplier of real-time recommendation solutions. It is the originator of online **collaborative filtering** technology, the most accurate predictor of individual behavior available. Also the originator of the Realtime Recommendation Platform, which integrates **collaborative filtering**, neural network, fuzzy logic and genetic algorithm technologies, and automatically applies the optimum technology to whatever recommendation or personalization task is at hand. Net Perceptions' founders include the original team of University of Minnesota researchers who pioneered the concepts and applications of **collaborative filtering** and lead programmers from supercomputer maker Cray Research. Net Perceptions has a customer base more than 10 times larger than its closest competitor. It includes Internet innovators: Amazon.com, ARTUFRAME, Audio Book Clubs, Billboard Talent Net, CDnow, E!Online, iVillage, Musicmaker.com, Lets Eat Out, N2K, Planet Direct, Speed Serve, Spinners.com, Soundstone and Ticketmaster. Net Perceptions has received financial backing from Hummer Winblad, JAFCO, London Pacific Life and Annuity, St. Paul Venture Capital Inc., and Paul Allen's investment group, Vulcan Ventures, Inc. Net Perceptions can be reached by calling 1-800-466-0711 or on the World Wide Web at http://www.netperceptions.com. /CONTACT: Taylor Allis of Alexander Communications, Inc., 303-615-5070, tallis@alexandercom.com., for Net Perceptions, Inc.; or Net Perceptions, Booth # 2705, Internet World Fall '98, Oct. 7-9/ 11:44 EDT

 19/3,AB,K/1   (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2004 ProQuest Info&Learning. All rts. reserv.
00087905 79-02795
Disaggregated Probabilistic Accounting Information: The Effect of Sequential Events on Expected Value Maxmization Decisions
Hirsch, Maurice L., Jr.
Journal of Accounting Research v16n2 PP: 254-269 Autumn 1978 ISSN:
    0021-8456 JRNL CODE: JAR
ABSTRACT: In a 2-act decision where each act had 2 events occuring in sequence, Ronen (1971) found that when the joint **probabilities** of succes of the 2 acts were equal (i.e., overall expected **values** of the alternatives were equal), subjects preferred the act where the **probability** of success associated with the first event was higher. An experiment was undertaken which deals with the issue of whether the sequence effect, associated with the provision of **probabilistic** information and identified by Ronen, exists in a more pragmatic and material setting. The design variables were presented both as a chance task and as a business case task. An internal-external locus of control or **personality** variable was incorporated as a possible **predictor** of decision-making behavior. The 2 tasks were perceived by the subjects as being different, and within the business case, there seemed to be a reinforcement of the notion of subjective **probability** revisions.

 19/3,AB,K/2   (Item 2 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2004 ProQuest Info&Learning. All rts. reserv.
00113110 80-06998
Renewing the Hunt for the Heffalump: Identifying Potential Entrepreneurs by Personality Characteristics
Hull, David L.; Bosley, John J.; Udell, Gerald G.
Journal of Small Business Management v18n1 PP: 11-18 Jan 1980 ISSN:

    0047-2778 JRNL CODE: JSB

ABSTRACT: The search for a way to identify potential entrepreneurs, or
individuals willing to assume the risks of organizing and managing
businesses in return for a profit, has been undertaken by a National
Science Foundation study at the University of Oregon. Many parameters of
entrepreneurship were studied and measured by using hypothesized factors
and variables cited in previous studies, such as the need for achievement
and locus of control. Seven scales were developed regarding **personality**
inventory: 1. interest in money and fame, 2. tendency to give socially
desirable responses, 3. entrepreneurship, 4. internal locus of control, 5.
likelihood to take risk, 6. creativity, and 7. the need to achieve. These
scales were used to test 41 items on a **personality** inventory administered
to 307 respondents, in order to gauge their **likelihood** to start a business.
Function task **preferences** and **personality** constructs were found to be most
important in identifying entrepreneurs. The Need for Achievement and
Internal Locus of Control Scales were not found to be significant in this
study as they had been in past studies to identify entrepreneurs. The risk
and creativity scales were better indicators of individuals most likely to
start their own businesses.

    19/3,AB,K/7   (Item 7 from file: 13)
DIALOG(R)File   13:BAMP

1112885   Supplier Number: 01841199
International Market Segmentation Based on Consumer-Product Relations
(Product marketers are challenged by global integration to handle
    international segmentation, and the paper proposes a methodology using
    means-end chains, which states that product attributes are means to the
    desired ends for consumers, that is, values)

Article Author(s): Ter Hofstede, Frenkel; Steenkamp, Jan-Benedict E M;
    Wedel, Michel

ABSTRACT:
An integrated methodology used in identifying segments in international
markets based on consumer means-end chains (MECs) is presented in the
paper. According to MEC theory, product **attributes** are used by consumers
to obtain desired results such as **values** through the benefits yielded by
the **attributes** . MEC offers a way by which consumers and product could be
linked in an international context. The paper developed a model that is
capable of identifying the relationships between the consumer and the
product at the segment level. The model takes into consideration the
different response tendencies, within and among countries. The model was
developed to allow it to be applied to different types of international
market selection and differentiation strategies. One, specific products
could be introduced to specific segments. Two, a single segment could be
targeted by a bundle of products. Three, the same product could be
developed for multiple segments. The model was tested in a Monte Carlo case
study, which revealed that the model works well even when subjected to a
diverse set of conditions. It was also used in examining the consumer data
on yogurt from European countries, wherein four international segments were
identified. It was further revealed that the segments were related to
consumer sociodemographics, consumption patterns, media consumption, and
personality . Article includes a figure illustrating the **probabilistic**

means-end map segment.

19/3,AB,K/8   **(Item 8 from file: 15)**
01798932   04-49923
The role of direction of comparison, attribute-based processing, and attitude-based processing in consumer preference
Mantel, Susan Powell; Kardes, Frank R
ABSTRACT: Preference formation involves comparing brands on specific **attributes** (attribute-based processing) or in terms of overall evaluations (attitude-based processing). When consumers engage in an **attribute**-based comparison process, the unique **attributes** of the focal subject brand are weighted heavily, whereas the unique attributes of the less focal referent brand are neglected. This direction of comparison effect is reduced when consumers engage in attitude-based processing or when high involvement increases motivation to process accessible attributes more thoroughly and systematically. The present research investigates a **personality** variable, need for cognition, that increases the likelihood of **attribute**-based versus attitude-based processing and therefore, also affects the magnitude of the direction-of-comparison effect.

·paul

perry

Resources on Collaborative Filtering

Press

The Science of the Sleeper How the Information Age could blow away the blockbuster. Malcolm Gladwell on Collaborative Filtering.

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2. Herlocker, J., Konstan, J., Borchers, A., Riedl, J.. An Algorithmic Framework for Performing Collaborative Filtering. Proceedings of the 1999 Conference on Research and Development in Information Retrieval. Aug. 1999
3. Badrul Sarwar, George Karypis, Joseph Konstan, and John Riedl Item-based Collaborative Filtering Recommendation Algorithms . WWW10, May 1-5, 2001, Hong Kong.
4. Eigentaste: A Constant Time Collaborative Filtering Algorithm , Ken Goldberg, Theresa Roeder, Dhruv Gupta, and Chris Perkins, UCB ERL Technical Report M00/41. August 20000.
5. Empirical Analysis of Predictive Algorithms for Collaborative Filtering Jack Breese, David Heckerman, Carl Kadie Microsoft Research.
6. Automated Collaborative Filtering and Semantic Transports by Alexander Chislenko
7. Analysis of the Axiomatic Foundations of Collaborative Filtering by David M. Pennock, Eric Horvitz
8. Web-Collaborative Filtering: Recommending Music by Crawling The WebWilliam W. Cohen, Wei Fan
9. "Which Intelligent Agents Are Smarter? An Analysis of Relative Performance of Collaborative and Individual Based Recommendation Agents" Dan Ariely and Manuel Aparicio IV, John G. Lynch, Jr..
10. GroupLens: An Open Architecture for Collaborative Filtering of Netnews
11. Augmenting Information Seeking on the World Wide Web Using Collaborative Filtering Techniquesby Don Turnbull
12. Interacting with Recommender Systems , Don Turnbull CHI'99
13. Shardanand U. and Maes (1995), Social information filtering: Algorithms for automating "word of mouth", Proceedings of CHI'95 -- Human Factors in Computing Systems, 210-217
14. Recommending and Evaluating Choices in a Virtual Community of Use Will Hill, Larry Stead, Mark Rosenstein, George Furnas, Bellcore CHI'95
15. Pointing the Way: Active Collaborative Filtering David Maltz, Carnegie Mellon University; Kate Ehrlich, Lotus Development Corporation CHI'95
16. Implicit Rating and Filtering In Proceedings of the 5th DELOS Workshop on Filtering and Collaborative Filtering, Budapest, Hungary, 10-12 November 1997, ERCIM, 31-36. ISBN: 2-912335-04-3.
17. Using Memex to archive and mine community Web browsing experience. Chakrabarti et. al., WWW9
18. Trawling the web for emerging cyber-communities Kumar et. al., IBM Almaden.
19. An Analysis of Prediction Algorithms for Collaborative Filtering by Bradley N. Miller, John T. Riedl, Joseph A. Konstan U of Mn CS Technical Report TR number: TR 96-035
20. Collaborative Filtering by Personality Diagnosis: A Hybrid Memory- and Model-Based Approach David M. Pennock, Eric Horvitz Microsoft Research.
21. Augmenting Information Seeking on the World Wide Web Using Collaborative Filtering Techniques Don Turnbull
22. Distributing Information for Collaborative Filtering on Usenet Net News David A. Maltz
23. Agent Based Personalized Information Retrieval - Joshua David Kramer (1997)
24. ReferralWeb: Combining Social Networks and Collaborative Filtering - Henry Kautz (1997)

25. An Efficient Boosting Algorithm for Combining Preferences - Yoav Freund, Raj Iyer, Robert.. (1998)
26. Considering Collaborative Filtering as Groupware: Experiences and Lessons Learned Proceedings of the Second International Conference on Practical Aspects of Knowledge Management
27. Improving Collaborative Filtering with Multimedia Indexing Techniques to create User-Adapting Web Sites Arnd Kohrs - Bernard Merialdo
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30. Latent Class Models for Collaborative Filtering Thomas Hofmann and Jan Puzicha Proceedings of the International Joint Conference in Artificial Intelligence, 1999
31. Social Information Filtering: Algorithms for Automating "Word of Mouth" Upendra Shardanand and Pattie Maes, CHI '95.
32. Yezdi Lashkari Feature-Guided Automated Collaborative Filtering

Minor pubs:

- Rating and filtering of scientific, technical and other network documents
- Rating web pages

Mail Lists:

- Berkeley

Conferences and Workshops:

- Berkeley Workshop on Collaborative Filtering, March 16, 1996
- Report on the Berkeley '96 Conference
- FIFTH DELOS WORKSHOP Filtering and Collaborative Filtering Budapest, 10-12 November 1997
- Notes on the above conference: DELOS '97
- Fourth International Conference on AUTONOMOUS AGENTS (Agents 2000) Barcelona, Catalonia, Spain. (mirrored here AI for Electronic Commerce, AAAI-99 Workshop

Other summary pages:

- Google search
- Microsoft Research
- ACM
- NRC/IIT
- bnc's collaborative filtering resources
- MultiAgent Sytems on Recommender Systems-Collaborative Filtering
- The Next Generation of Internet Search engines
- Agustin Schapira's Resources on Collaborative Filtering
- MIT Media Lab Agents Group Resources
- Chislenko self serving search
- Yahoo Intelligent Software Agents page
- and Yahoo Intelligent Agents page

Data Sets:

- EachMovie Data

Systems:

- WebBIRD:BIRD is a bibliometric query by example search engine. Given a set of pages of interest to the user, it retrieves a set of similar documents by following citation paths that pass through those given documents.
- GroupLens
- GroupLens Browser Watcher
- movielens: movie recommendation system from the grouplens team featuring 1800 movies and 50000 users.
- firefly: company providing collaborative filtering technology in a variety of different domains.
- gustos starrater: java applet for web page recommendations.
- jester: collaborative filtering system for jokes.
- moviecritic: movie recommendation system from likeminds.
- cinemax movie matchmaker: cinemax's movie recommendation system from likeminds featuring films from the past 10-15 years.
- my launch: collaborative filtering system for music.
- amazon.com: recommendations on books and music.
- TV Recommender
- Firefly Networks's
- Suggest 1.0

Academic Departments and research centers:

- Cooperative Systems Engineering Group, Computing Department, Lancaster University, Lancaster UK
- MIT Media Lab Software Agents Group
- IBM Institute for Advanced Commerce

Patents:

- John B. Hey (Patent numbers 4870579 and 4996642).

People:

- Marko Balabanovic
- Jack Breese, Microsoft Research
- Peter Brusilovsky, CMU
- Alexander (Sasha) Chislenko
- Ken Goldberg, U.C. Berkeley
- Thomas Hofmann, Brown University
- Joaquin A. Delgado
- David Heckerman, Microsoft Research
- Eric Horvitz
- Jon Herlocker, Oregon State.
- Carl Kadie, Microsoft Research
- Paul Maglio
- David A. Maltz, CMU
- Paul Resnick, UMich
- John Riedl Grouplens, NetPerceptions, U Minessota
- Badrul Munir Sarwar, U. Minessota.
- Don Turnbull, U Toronto
- MIT Media Lab: Software Agents Group people
- George Karypis

Companies:

- Preference Metrics
- Rating Zone
- Net Perceptions
- Triple Hop

- SeraphimTech
- IXMatch
- Yo.com
- Outride Inc
- FastFocus Inc.
- Reactive Research

Related Companies:

- Saffron Tech
- OpinionLab

Defunct companies:

- Firefly Network - movies, books, music, etc.
- WiseWire - news recommendations
- Open Sesame -
- LikeMinds - movies
- FizzyLabs - similarity engine for documents

Empirical Analysis of Predictive Algorithms for Collaborative Filtering

Jack Breese
David Heckerman
Carl Kadie

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Abstract:

Collaborative filtering or recommender systems use a database about user preferences to predict additional topics or products a new user might like. In this paper we describe several algorithms designed for this task, including techniques based on correlation coefficients, vector-based similarity calculations, and statistical Bayesian methods. We compare the predictive accuracy of the various methods in a set of representative problem domains. We use two basic classes of evaluation metrics. The first characterizes accuracy over a set of individual predictions in terms of average absolute deviation. The second estimates the utility of a ranked list of suggested items. This metric uses an estimate of the probability that a user will see a recommendation in an ordered list. Experiments were run for datasets associated with 3 application areas, 4 experimental protocols, and the 2 evaluation metrics for the various algorithms. Results indicate that for a wide range of conditions, Bayesian networks with decision trees at each node and correlation methods outperform Bayesian-clustering and vector-similarity methods. Between correlation and Bayesian networks, the preferred method depends on the nature of the dataset, nature of the application (ranked versus one-by-one presentation), and the availability of votes with which to make predictions. Other considerations include the size of database, speed of predictions, and learning time.

(postscript, 397KB)

(zipped postscript, 97KB)

Automated Collaborative Filtering and Semantic Transports

[Version 0.72 - 15-Oct-97]

© 1997 Alexander Chislenko - *sasha1@netcom.com*

The essay is also available in Rich Text format and MS Word Format

Preamble for draft readers

This essay focuses on the conceptualization of the issues, comparisons of current technological developments to other historical/evolutionary processes, future of automated collaboration and its implications for economic and social development of the world, and suggestions of what we may want to pursue and avoid. Explanations of the workings of the technology and analysis of the current market are not my purpose here, although some explanations and examples may be appropriate. Please send your suggestions to *sasha1@netcom.com*

You can find an up-to-date version of the essay at *http://www.lucifer.com/~sasha/articles/ACF.html*

Abstract

Automated Collaborative Filtering of information (ACF) is an unprecedented technology for distribution of opinions and ideas in society and facilitating contacts between people with similar interests. It automates and enhances existing mechanisms of knowledge distribution and dramatically increases their speed and efficiency. This allows to optimize knowledge flow in the society and accelerate the evolution of ideas in practically all subject areas. ACF also provides a superior tool for information retrieval systems that facilitates users' navigation in the sea of information in a meaningful and personalized way. This technology can be viewed as a *semantic transport* - a social utility that, after physical and data transports, transfers increasingly abstract and intelligent objects between previously isolated fragments of the social organism. As an artificial system that integrates and processes knowledge of multiple human participants, ACF represents an intermediate stage between human and purely artificial intelligence and lays the foundation for the future knowledge processing industry. This article discusses the premises and the historical analogs of ACF technology and suggests its possible uses as well as long-term economic and social implications.

Premises of Automated Collaborative Filtering

Information flows in the society

Social mechanisms of knowledge distribution represent a formative factor for all spheres of social life. It is the advantages of sharing knowledge among individuals that, together with benefits of group work, led to the development of language, symbolic thinking, and specialization of labor. The rate of social progress is to a large degree determined by the availability of standardized and affordable communication tools. The transaction costs of the social communication infrastructure define the scales and interrelations of social institutions. Effective mechanisms for collecting and publishing aggregate opinions of the population are a crucial factor for democratic governance; similar mechanisms for

establishing balanced product and share prices form a signaling foundation of a market economy.

Collaborative filtering of information

While generalized, or aggregate, information is essential for balancing social processes on the macro-scale, it is usually not sufficient for suggesting optimal behavior to any particular person. For making efficient personal selections, people have to possess both necessary general knowledge and special information relevant to their particular situation. For collecting necessary information, one has to choose what objects to pay attention to. In early human history, each person was familiar with the whole environment and, after gaining experience with most available things and people, could decide what to explore further. However, this strategy cannot work in a more complex society, when one is faced with more objects and people than he can even sample. This situation requires exchange of personal experience among individuals and sharing personal advice on many particular issues. If a person needs to make a decision in an unknown situation, he can talk to his friends, and follow their suggestions. Here, one's circle of acquaintances effectively plays the role of an information filter, suggesting most relevant options and leads for further exploration.

With increasing variety of areas of expertise and value judgments, the opinions of a few chosen individuals and the averaged opinion of the society become insufficient for providing advice for all of one's decisions. In this situation, larger-scale collaboration in information filtering becomes increasingly important. Individuals seeking advice query people with similar interests whom they trust, collect their opinions and choose the options selected by the majority of the most knowledgeable people. This is very often the way we select places for vacation, books, movies, or restaurants. If none of the people we ask have any experience with a specific item, some of them may still know something about it, if they have heard about it from others. If someone cannot recommend an item of interest, they may still be able to refer us to another person who we may ask about it. This is the "word of mouth" method of information distribution in a society.

Active Collaborative Filtering

Querying people is a useful method for finding information when you know you need it, or when you think something new might have appeared. This method may be called "user pull", as you have to expend an effort to pull the knowledge out of the passive environment. However, it is not always sufficient, especially in cases when you do not know what questions to ask, or something totally new has happened, or your contacts find out something they couldn't have told you about before.

Active collaborative filtering helps you in such cases, by bringing you information you need when someone in your community discovers it. Information can "find" you in two ways. First, you can ask people to let you know whenever they learn something exciting, new, or relevant in some area. Second, people who know you can share information if they decide you can benefit from it. In both cases, after learning about your needs or preferences, members of the community take an active role in supplying you with important knowledge. We can say that the community actively "pushes" the information towards you.

Limitations of existing filtering methods

Traditional methods of knowledge distribution become very inefficient when the size and complexity of a society far outpace the ability of anyone's circle of acquaintances to monitor events. The modern communication system transmits billions of messages daily, and many of them may be of great interest to you. You can also easily access any of the millions of available books, magazines, songs, movies or

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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200455
File 347:JAPIO Nov 1976-2004/Apr(Updated 040802)
Set      Items    Description
S1         254    COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-
                  )()(SYSTEM? ? OR TECHNIQUE? ? OR METHOD? ?)
S2     2040752    ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES
                  OR RATING? ? OR TRAIT? ? OR CHARACTERISTIC? ?
S3       45182    PROBAB? OR LIKELIHOOD
S4        1239    PERSONALITY OR PERSONALITIES
S5           0    S1(S)S4
S6      188850    PERSONAL
S7       57207    AUTOMATED
S8      735078    COMPUTER?
S9       97619    INTERNET
S10     682570    COLLABORAT? OR FILTER??? OR RECOMMEND?
S11     605460    IC=(G09B-019 OR G01D-001 OR G06F-017 OR G07G-001 OR G06F-0-
                  07 OR G06F-015)
S12          1    S1 AND S4
S13        435    S6()S2
S14          2    (S1 AND S13) NOT S12
S15          9    S2 AND S3 AND S4
S16          2    S11 AND S15
S17          2    S16 NOT (S12 OR S14) [duplicates]
S18        262    (S4 AND S11) NOT (S12 OR S14 OR S16)
S19          8    S18 AND S10
S20        142    S18 AND S7:S9
S21          0    S19 NOT (S12 OR S14 OR S16 OR S18)
S22          7    S15 NOT (S12 OR S14 OR S16 OR S18)
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 12/34/1      (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
014570034     **Image available**
WPI Acc No: 2002-390737/200242
```

*Complex filtering device and method for database marketing in electronic
commercial transaction*

```
Patent Assignee: EPION CO LTD (EPIO-N); KIM B D (KIMB-I)
Inventor: KIM B D
Number of Countries: 001  Number of Patents: 001
Patent Family:
Patent No     Kind   Date     Applicat No   Kind   Date       Week
KR 2001111913 A      20011220 KR 200032690  A      20000614  200242   B
Priority Applications (No Type Date): KR 200032690 A 20000614
Patent Details:
Patent No  Kind Lan Pg   Main IPC     Filing Notes
KR 2001111913 A       1  G06F-017/60
Abstract (Basic): KR 2001111913 A
```

        NOVELTY - A complex filtering device and a method for database
    marketing in electronic commercial transaction are provided to
    recommend items for customers by accumulating and analyzing various
    individual information(age, sex, hobby, **personality** and so on) and
    past purchase information generated on web.
        DETAILED DESCRIPTION - A complex filtering device for database
    marketing in electronic commercial transaction consists of a
    HTML(hypertext markup language)(10), a merchant server(12), a front
    module(14), a database(16), a hybrid filtering(22), a connection

manager(24), a client(26), a contents producer(28) and a mail
agent(30). The HTML(10) displays item box(goods and service
information) of web site selected by the customer. If the customer
clicks the item box, the merchant server(12) displays goods and service
information to the customer in detail, or provides recommended item to
the customer. The front module(14) collects data for recommend items
fit to taste of the customer among items provided by the merchant
server(12). The database(16) accumulates and analyzes data collected by
the front module(14), and processes data as database fitting preference
of the customer. The hybrid filtering(22) applies **collaborative
filtering** (18) and content-based filtering(20) algorithm to data
outputted from the front module(14) and the database(16), and provides
items according to preference of each customer. The connection
manager(24) manages operation state of the hybrid filtering(22). The
connection manager(24) manages the client(26).
      pp; 1 DwgNo 1/10
Derwent Class: T01
International Patent Class (Main): G06F-017/60

 14/7/1   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
015418143   **Image available**
WPI Acc No: 2003-480283/200345
Recommendation system **e.g. cable television system selects recommended media
presentation event based on instantaneous recommendation value for each
event, on request**
Patent Assignee: KONINK PHILIPS ELECTRONICS NV (PHIG)
Inventor: KURAPATI K; SCHAFFER J D; TROVATO K I
Number of Countries: 028 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030061183	A1	20030327	US 2001963245	A	20010926	200345	B
WO 200328368	A1	20030403	WO 2002IB3696	A	20020910	200345	
EP 1433312	A1	20040630	EP 2002762713	A	20020910	200443	
			WO 2002IB3696	A	20020910		

Priority Applications (No Type Date): US 2001963245 A 20010926
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030061183	A1		25	G06F-015/18	
WO 200328368	A1	E		H04N-005/445	

    Designated States (National): CN JP KR
    Designated States (Regional): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
    IE IT LU MC NL PT SE SK TR
EP 1433312   A1 E   H04N-005/445 Based on patent WO 200328368
    Designated States (Regional): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
    IE IT LI LU MC NL PT SE SK TR
Abstract (Basic): US 20030061183 A1
      NOVELTY - The recommendation function for each media presentation
   events is calculated and weighted, using fuzzy-now function
   corresponding to the recommendation value for each events at specific
   time on specific channel. A selector selects recommended event based on
   instantaneous recommendation value, on request.
      DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for
   recommendation   method .
      USE - E.g. cable television (CATV) system, broadcast television

system.
ADVANTAGE - Since the personal schedule of the user is incorporated
into recommendation procedure, the **personal** **preferences** of user is
reflected accurately.
DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of the
relevant functional modules in three-way **recommendation** **system** .
pp; 25 DwgNo 9/12
Derwent Class: T01; W03
International Patent Class (Main): G06F-015/18; H04N-005/445

 14/7/2   **(Item 2 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
(c) 2004   Thomson Derwent. All rts. reserv.
014816262   **Image available**
WPI Acc No: 2002-636968/200268
**System for automatically recommending broadcasting program uses point
classification based on predetermined grade and stores user preferences in
database**
Patent Assignee: GENTOR.COM INC (GENT-N); GENTOR.COM (GENT-N)
Inventor: HWANG J; HWANG Y H
Number of Countries: 100   Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200273500	A1	20020919	WO 2002KR440	A	20020314	200268	B
KR 2002073050	A	20020919	KR 200113207	A	20010314	200311	
AU 2002241360	A1	20020924	AU 2002241360	A	20020314	200433	

Priority Applications (No Type Date): KR 200113207 A 20010314
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200273500	A1	E	17	G06F-019/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM
·PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA
ZM ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

KR 2002073050	A			G06F-019/00	
AU 2002241360	A1			G06F-019/00	Based on patent WO 200273500

Abstract (Basic): WO 200273500 A1
NOVELTY - System for automatically recommending a broadcasting
program comprises a recommending server classifying the program
recommending information received in advance in response to a request
for a recommendation from the user and providing an estimated result by
adding weight. User **personal** **preference** information is stored in a
database along with the recommending information. The server comprises
a recommending information module storing the user inquiry -
reservation - vote information, the user being connected to a website
operated by the server, a classifier model for the program information
and a recommending module providing a result of point classification
based on a predetermined grade.
DETAILED DESCRIPTION - There is an INDEPENDENT CLAIM for a program
for automatically recommending a broadcasting program.
USE - System is for automatically recommending a broadcasting
program by analysis of viewer preferences.
· DESCRIPTION OF DRAWING(S) - The figure shows an automatic broadcast

program **recommendation** method .
pp; 17 DwgNo 2/6
Derwent Class: T01; W02
International Patent Class (Main): G06F-019/00

22/TI/3   **(Item 3 from file: 350)**
DIALOG(R)File 350:(c) 2004 Thomson Derwent. All rts. reserv.
  **Computer user interface for use with hand held devices, has Bayesian
  agent network model to which data about desired emotion and personality
  states to be conveyed by agent is dictated by policy module**

22/TI/4   **(Item 4 from file: 350)**
DIALOG(R)File 350:(c) 2004 Thomson Derwent. All rts. reserv.
Use of new and known Ih channel modulators for treating psychiatric disorders

22/TI/7   **(Item 1 from file: 347)**
DIALOG(R)File 347:(c) 2004 JPO & JAPIO. All rts. reserv.
**GROWTH VIDEO GAME DEVICE, CHARACTER GROWTH CONTROL METHOD, AND READABLE
STORAGE MEDIUM RECORDING CHARACTER GROWTH CONTROL PROGRAM**

```
File 348:EUROPEAN PATENTS 1978-2004/Aug W04
File 349:PCT FULLTEXT 1979-2002/UB=20040826,UT=20040819
Set       Items     Description
S1          488     COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-
                    )()(SYSTEM? ? OR TECHNIQUE? ? OR METHOD? ?)
S2      1048510     ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES
                    OR RATING? ? OR TRAIT? ? OR CHARACTERISTIC? ?
S3       161982     PROBAB? OR LIKELIHOOD
S4         2983     PERSONALITY OR PERSONALITIES
S5            5     S1(S)S4                                     )
S6       113399     PERSONAL
S7        90298     AUTOMATED
S8       318911     COMPUTER?
S9        79679     INTERNET
S10      443343     COLLABORAT? OR FILTER??? OR RECOMMEND?
S11       65763     IC=(G09B-019 OR G01D-001 OR G06F-017 OR G07G-001 OR G06F-0-
                    07 OR G06F-015)
S12          11     (S6()S2 OR S4) (S) S1
S13           6     S11 AND S12
S14           5     S12 NOT S13
S15         502     S4 AND S11
S16          28     S1 AND S15
S17          25     S16 NOT S12
S18         107     S1/TI,AB
S19           2     S17 AND S18
S20           1     (S4/TI,AB AND S17) NOT S19
S21          22     S17 NOT S19:S20
```

13/3,AB/1
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.
01541477
Meta-document management system with user definable personalities
System zum Verwalten von Meta-Dokumenten mit benutzerdefinierbaren Personlichkeiten
Systeme de gestion de Meta-documents avec personnalites definissables par l'utilisateur
PATENT ASSIGNEE:
  Xerox Corporation, (219004), Patent Department, Xerox Square - 20 A, 100
    Clinton Avenue South, Rochester, New York 14644, (US), (Applicant
    designated States: all)
INVENTOR:
  Shanahan, James G., 608 Filbert Street Nr. 4, Pittsburg, PA 15232, (US)
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  Fernstrom, Christer, 23, chemin des Demoiselles, 38330 St-Ismier, (FR)
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  Guerin, Nicolas, 15, Boulevard du Marechal Leclerc, 38000 Grenoble, (FR)
LEGAL REPRESENTATIVE:
  Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721)
    , Maximilianstrasse 58, 80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1284461 A1 030219 (Basic)
APPLICATION (CC, No, Date): EP 2002018111 020813;
PRIORITY (CC, No, Date): US 311857 P 010813; US 683236 011205
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G06F-017/30

ABSTRACT EP 1284461 A1
A system operates using meta-documents which include document content
associated with one or more **personalities**. Each **personality** is associated
with a set of document service requests. Users are provided different
techniques for creating personalities and modifying existing
personalities. These techniques include: the use of an algebra to tailor
existing personalities, the use of a list of links or documents to create
a personality, the use of predefined personalities and knowledge levels
in a field to create new personalities, the use of question answering
techniques, and the use of learning personalities. Specified
personalities are then used to enrich document content by integrating
into corresponding meta-documents the results received from their
document service requests.
ABSTRACT WORD COUNT: 113
NOTE: Figure number on first page: 1
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200308	948
SPEC A	(English)	200308	40481
Total word count - document A			41429
Total word count - document B			0
Total word count - documents A + B			41429

13/3,AB/2
DIALOG(R)File 349:PCT FULLTEXT
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00900313
INTELLIGENT PERFORMANCE-BASED PRODUCT RECOMMENDATION SYSTEM
SYSTEME DE RECOMMENDATION DE PRODUIT BASE SUR UNE PERFORMANCE INTELLIGENTE
Patent Applicant/Assignee:
   JOHNSON & JOHNSON CONSUMER COMPANIES INC, 199 Grandview Road, Skillman,
      NJ 08558, US, US (Residence), US (Nationality)
Inventor(s):
   SHAYA Steve, 144 Portland Road, Highlands, NJ 07732, US,
   MATHESON Neal, 170 Liberty Place, Princeton, NJ 08540, US,
   SINGARAYAR John Anthony, 89 Green Meadow Road, Skillman, NJ 08558, US,
   KILLIAS Nikiforos, 406 Sunset Road, Skillman, NJ 08558, US,
   BLOOM Jeffrey Adam, 12 Krebs Road, Plainsboro, NJ 08536, US,
Legal Representative:
   ELDERKIN Dianne B (et al) (agent), Woodcock Washburn LLP, 46th floor, One
      Liberty Place, Philadelphia, PA 19103, US,
Patent and Priority Information (Country, Number, Date):
   Patent: WO 200233628 A2 20020425 (WO 0233628)
   Application: WO 2001US32294 20011017 (PCT/WO US0132294)
   Priority Application: US 2000241405 20001018
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
   AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
   EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
   LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL
   TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
   (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
   (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
   (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

    (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 23635

13/3,AB/4
DIALOG(R)File 349:PCT FULLTEXT
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00574705
**METHODS AND SYSTEMS FOR PROVIDING PERSONALIZED SERVICES TO USERS IN A
    NETWORK ENVIRONMENT**
**PROCEDES ET SYSTEMES PERMETTANT DE FOURNIR DES SERVICES PERSONNALISES A DES
    UTILISATEURS DANS UN ENVIRONNEMENT DE RESEAU INFORMATIQUE**
Patent Applicant/Assignee:
  JJ MOUNTAIN INC,
Inventor(s):
  CAO Jingjun,
  CHU Chien-Yi,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200038078 A1 20000629 (WO 0038078)
  Application: WO 99US30580 19991221   (PCT/WO US9930580)
  Priority Application: US 98113094 19981221
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK EE ES FI GB GD
  GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD
  MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ
  VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM
  AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM
  GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 12534
English Abstract
  Methods, systems and software products for providing **personalized**
  services to users in a computer network environment comprise **collecting
  user information** through at least one user interface (504), analyzing the
  collected user information (506), generating at least one rule based on
  the analysis (508), and providing at least one personalized service to
  the user based on the generated at least one rule (514). In another
  exemplary embodiment, the methods, systems and software products also
  comprise sending the collected user information to a server for analysis
  (504 and 510), receiving a response from the server based on the server
  analysis (512), and processing the received response (514). In one
  embodiment, processing comprises (i) saving the response in a local
  cache, and (ii) implementing the response.

 13/3,AB/5
DIALOG(R)File 349:PCT FULLTEXT
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00554420
USE OF ELECTRONIC SHOPPING CARTS TO GENERATE PERSONAL RECOMMENDATIONS
*UTILISATION DE CARTES D'ACHATS ELECTRONIQUES POUR ELABORER DES
    RECOMMANDATIONS PERSONNELLES*
Patent Applicant/Assignee:
  AMAZON COM,

Inventor(s):
  JACOBI Jennifer A,
  BENSON Eric A,
  LINDEN Gregory D,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200017793 A1 20000330 (WO 0017793)
  Application: WO 99US21108 19990913 (PCT/WO US9921108)
  Priority Application: US 98156237 19980918
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AL AM AT AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ CZ DE DE DK DK DM
  EE EE ES FI FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK
  LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SK SL
  TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY
  KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 10798
English Abstract

   A **recommendations service** recommends products or other items to
individual users based on items that are known to be of interest to the
users, such as items that are currently and/or were recently in the
user's shopping cart. The user may optionally create multiple shopping
carts, and view the recommendations associated with a particular shopping
cart. The service generates the recommendations using a table (60) which
maps items (62) to lists (64) of "similar" items. The similarities
reflected by the table (60) are preferably based on the collective
interests of the community of users. To generate personal
recommendations, the service retrieves from the table (60) the similar
items lists (64) corresponding to the items known to be of interest to
the user. These similar items lists (64) are appropriately combined into
a single list, which is then sorted and filtered to generate a list of
recommended items.

   13/3,AB/6
DIALOG(R)File 349:PCT FULLTEXT
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00554419
COLLABORATIVE RECOMMENDATIONS USING ITEM-TO-ITEM SIMILARITY MAPPINGS
RECOMMANDATIONS COMMUNES A L'AIDE DE TABLES DE CORRESPONDANCE DE SIMILARITE
     ARTICLE A ARTICLE
Patent Applicant/Assignee:
  AMAZON COM,
Inventor(s):
  LINDEN Gregory D,
  JACOBI Jennifer A,
  BENSON Eric A,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200017792 A1 20000330 (WO 0017792)
  Application: WO 99US20974 19990910 (PCT/WO US9920974)
  Priority Application: US 98157198 19980918
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AL AM AT AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ CZ DE DE DK DK DM

```
EE EE ES FI FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK
LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SK SL
TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY
KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
```
Publication Language: English
Fulltext Word Count: 10860
English Abstract

A **recommendations service** recommends items to individual users based on
a set of items that are known to be of interest to the user, such as a
set of items previously purchased by the user. The service is used to
recommend products to users of a merchant's Web site (30). The service
generates the recommendations using a previously-generated table (60)
which maps items (62) to lists (64) of "similar" items. The similarities
reflected by the table (60) are **based on the collective interests of the
community of users.** To generate personal recommendations, the service
retrieves from the table (60) the similar items lists (64) corresponding
to the items known to be of interest to the user. These similar items
lists (64) are appropriately combined into a single list, which is then
sorted and filtered to generate a list of recommended items. Also
disclosed are various methods for using the current and/or past contents
of a user's electronic shopping cart to generate recommendations.

14/6/1   (Item 1 from file: 348)
01598460
**Expert system assisting agent and customer in determining an optimum
    network solution**

 14/6/2   (Item 2 from file: 348)
01598459
Internet access guidance engine with expert system

 14/6/4   (Item 2 from file: 349)
00942519
**METHOD AND   SYSTEM FOR DISTRIBUTING CONTENT OVER A WIRELESS COMMUNICATIONS
    SYSTEM**

 14/3,AB,K/3   (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
01060430
IMPROVED PROGRAMME SELECTION
SELECTION DE PROGRAMME AMELIORE
Patent Applicant/Assignee:
  AGENA LIMITED, 11 Main Street, Caldecote, Cambridge CB3 7NU, GB, GB
    (Residence), GB (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
  FENTON Norman, 3 Wordsworth Avenue, South Woodford, London E18 2HD, GB,
    GB (Residence), GB (Nationality), (Designated only for: US)
  NEIL Martin, 24 Lammas Close, Staines TW18 4XE, GB, GB (Residence), GB
    (Nationality), (Designated only for: US)
Legal Representative:
  GARRATT Peter Douglas (et al) (agent), Mathys & Squire, 100 Gray's Inn
    Road, London EC1X 8AL, GB,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200390466 A2-A3 20031030 (WO 0390466)

        Application: WO 2003GB1604 20030415   (PCT/WO GB0301604)
        Priority Application: GB 20028607 20020415
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
    AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
    EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
    LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG
    SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
    (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE
    SI SK TR
    (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
    (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
    (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 9036
English Abstract
    A system for recommending television programmes has a programme
    classifier deriving membership functions indicating the degree of
    membership each programme has of the classes for each programme
    attribute; a viewer profiler monitoring which programmes are watched by
    the individual viewer and learning through a Bayesian network a
    preference profile for the individual as a function of those classes; and
    a programme recommender serving to recommend to the viewer those
    available programmes whose membership functions most closely match the
    preference profile.
Fulltext Availability: Detailed Description
Detailed Description
... highly individualistic, evidencing subtleties that cannot (or can only
    with great difficulty) be distinguished through **collaborative
    filtering** . It would also be preferable to have a system that placed less
    rather than more reliance upon the direct intervention of viewers to
    establish 0 **personal   preferences** .
    It is therefore an object of one aspect of the present invention to
    provide an...

 14/3,AB,K/5   (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00496080
SYSTEM AND METHOD FOR INTEGRATING HETEROGENEOUS INFORMATION
SYSTEME ET PROCEDE D'INTEGRATION DE DONNEES HETEROGENES
Patent Applicant/Assignee:
  IBRAIN SOFTWARE INC,
Inventor(s):
  SIKKA Vishal,
  SIKKA Digvijay,
  SOARES Thomas,
  PATEL Sukesh,
Patent and Priority Information (Country, Number, Date):
    Patent: WO 9927432 A2 19990603
    Application: WO 98US24711 19981120   (PCT/WO US9824711)
    Priority Application: US 9766742 19971121
Designated States:
(Protection type is "patent" unless otherwise stated - for applications

prior to 2004)
  JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 7253
English Abstract
  A computer-implemented method for querying multiple different types of
  information, each type of information having a different evaluator,
  includes receiving a query (102) comprising an identification of at least
  two evaluators, at least one relationship between the evaluators, and a
  method of combining results from the evaluators; parsing (104) the query
  to create (108) an evaluation sequence comprising an ordered sequence of
  invocations of the evaluators; invoking (110) the evaluators in the
  evaluation sequence; and combining (112) results from the evaluators
  according to the method of combining results from the evaluators
  specified in the query.
Fulltext Availability: Detailed Description
Detailed Description
... or ratings are examples of qualitative information. Techniques for
  evaluating such information are based on **collaborative filtering** ,
  qualitative data analysis, at the like.
  Quantitative information is evaluated based on precise analytical and...

  19/3,AB/1   (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00859463
DISTRIBUTED MONITORING SYSTEM PROVIDING KNOWLEDGE SERVICES
SYSTEME DE CONTROLE DISTRIBUE FOURNISSANT DES SERVICES DE CONNAISSANCE
Patent Applicant/Inventor:
  UCHIYAMA Koki, AXIA Yoyogi 601, 1-58-2 Yoyogi, Shibuya, Tokyo 151-0053,
    JP, JP (Residence), JP (Nationality)
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200193096 A2-A3 20011206 (WO 0193096)
  Application: WO 2001IB1237 20010530 . (PCT/WO IB0101237)
  Priority Application: US 2000208394 20000530; US 2000228519 20000828
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
  EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL
  TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 15238
English Abstract
  A de-centralized, or distributed, monitoring system provides for data
  collection across a broad range of remote sources, collecting explicit
  data (which may be input directly by a user in the form of
  recommendation, comment, or vote) and/or implicit data (which may be
  collected by the system according to the user's browsing activity). Data
  may be monitored locally at the client side, and subsequently transmitted

to a central database. Data may be aggregated at the server, having been
collected on the client side from multiple remote sources. During the
aggregation process, data collected by the distributed monitoring system
are categorized and organized in a central database for convenient
retrieval. Implementation of the collected data includes both
transmitting explicit data on demand as well as utilizing explicit data,
implicit data, or a combination of both explicit and implicit data, in an
open **recommendation system** which facilitates customization and.
personalization of the information retrieval process. A user may be
provided with the option of turning off, or "deselecting," the implicit
data collection functionality of the system.

19/3,AB/2   (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00747117
GIFT ASSORTMENT SELECTION- AND RECOMMENDATION - SYSTEM
SYSTEME DE RECOMMANDATION ET DE SELECTION DE CADEAUX
Patent Applicant/Assignee:
  FREDHOPPER INC, P.O. Box 287, Easthampton, NY 11937, US, US (Residence),
    US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
  WARD Lea Richardson, Albert Hahnplantsoen 18, NL-1077 BM Amsterdam, NL,
    NL (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
  VAN BREDA Jacques, Octrooibureau Los en Stigter B.V., Weteringschans 96,
    NL-1017 XS Amsterdam, NL
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200060509 A1 20001012 (WO 0060509)
  Application: WO 2000EP2885 20000331 (PCT/WO EP0002885)
  Priority Application: NL 1011720 19990401
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB
  GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA
  MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA
  UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 3351
English Abstract
  The invention relates to a gift assortment selection system comprising an
  electronic memory suitable to store and release elements from a gift data
  file, a display unit and a user's interface for the selection and for
  showing at least one element from the gift data file on the display unit,
  wherein the user interface is provided with an input-selection unit for
  determining at least one giver profile and one receiver profile, and
  which is provided with a gift criteria file and a decider unit that is
  equipped, in collaboration with the giver profile and the receiver
  profile, to select an element from the gift data file.

20/3,AB/1   **(Item 1 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT
00565054
SYSTEM AND METHOD FOR MATCHING USERS WITH ITEMS IN A NETWORK
SYSTEME ET METHODE PERMETTANT D'ETABLIR DES LIENS DE CORRESPONDANCE ENTRE
    DES UTILISATEURS ET DES PRODUITS DANS UN RESEAU
Patent Applicant/Assignee:
  PANOPTICON INC,
  RABINOWITZ Matthew,
  DRUZHNIKOV Ilya Abezgauz,
  STOICA Andrei,
  KIM Stanley Hyungjung,
  HUGHES Craig Rungaldier,
Inventor(s):
  RABINOWITZ Matthew,
  DRUZHNIKOV Ilya Abezgauz,
  STOICA Andrei,
  KIM Stanley Hyungjung,
  HUGHES Craig Rungaldier,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200028427 A1 20000518 (WO 0028427)
  Application: WO 99US26783 19991110   (PCT/WO US9926783)
  Priority Application: US 98107747 19981110
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB
  GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA
  MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA
  UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD
  RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF
  CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 20049
English Abstract
  A system and method of determining and using psychographic information to
  help better match user's interests with products and services.
  Psychographic information is information about an individual's
  personality . This information can be associated with an item to indicate
  what **personality traits** are more common among people who are, or are
  not, more likely to be interested in that item. The system supports two
  types of profiles: user profiles (216) and item profiles (214). A user
  profile (216) contains the psychographic information showing
  correspondence, or lack thereof, between a user and various **personality**
  traits. Similarly, an item profile (214) describes the **personality**
  traits of users who are interested, or are not interested, in that item.
  These profiles can be associated with confidence levels to show which
  traits are better known in the profiles.

21/3,AB/2   **(Item 2 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT
00946933
PROFILE MANAGEMENT SYSTEM
SYSTEME DE GESTION DES PROFILS

Patent Applicant/Assignee:
  BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY, 81 Newgate Street,
    London EC1A 7AJ, GB, GB (Residence), GB (Nationality), (For all
    designated states except: US)
Patent Applicant/Inventor:
  THINT Marcus, 9749 Vineyard Court, Boca Raton, FL 33428, US, US
    (Residence), US (Nationality), (Designated only for: US)
  CASE Simon James, 4 Alder Close, Benhall, Saxmundham, Suffolk IP17 1QB,
    GB, GB (Residence), GB (Nationality), (Designated only for: US)
  AZARMI Nader, 7 Sanders Drive, Colchester, Essex CO3 3SE, GB, GB
    (Residence), GB (Nationality), (Designated only for: US)
Legal Representative:
  LLOYD Barry George William (agent), BT Group Legal Services, Intellectual
    Property Department, Holborn Centre, 8th Floor, 120 Holborn, London
    EC1N 2TE, GB,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200280056 A2 20021010 (WO 0280056)
  Application: WO 2002GB1421 20020325   (PCT/WO GB0201421)
  Priority Application: EP 2001303061 20010330; GB 20018092 20010330; US
    200273267 20020213
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
  EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
  SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 5984

 21/3,AB/4   (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00879881
ELECTRONIC EMPLOYEE SELECTION SYSTEMS AND METHODS
SYSTEMES ET PROCEDES DE SELECTION D'EMPLOYES PAR VOIE ELECTRONIQUE
Patent Applicant/Assignee:
  UNICRU INC, 9300 S.W. Nimbus Avenue, Beaverton, OR 97008, US, US
    (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
  SCARBOROUGH David J, 3715 Fairview Way, West Linn, OR 97068, US, US
    (Residence), US (Nationality), (Designated only for: US)
  BECKER Richard W, 7954 S.W. 48th Avenue, Portland, OR 97219, US, US
    (Residence), US (Nationality), (Designated only for: US)
  CHAMBLESS Bjorn, 1936 N.W. Raleigh #1, Portland, OR 97209, US, US
    (Residence), US (Nationality), (Designated only for: US)
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        (Residence), US (Nationality), (Designated only for: US)
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   SMITH David R, 12041 S.W. Sagehen Street, Beaverton, OR 97007, US, US
      . (Residence), US (Nationality), (Designated only for: US)
   SMITH John R, 3202 N.E. 1st Place, Hillsboro, OR 97124, US, US
        (Residence), US (Nationality), (Designated only for: US)
   PAAJANEN George E, 2314 Falcon Drive, West Linn, OR 97068, US, US
        (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
   MAURER Gregory L (agent), Klarquist, Sparkman, LLP, One World Trade
      Center, Suite 1600, 121 SW Salmon Street, Portland, OR 97204, US,
Patent and Priority Information (Country, Number, Date):
   Patent: .   WO 200213095 A2 20020214 (WO 0213095)
   Application: WO 2001US24323 20010802   (PCT/WO US0124323)
   Priority Application: US 2000223289 20000803
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
   AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
   EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
   LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL
   TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
   (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
   (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
   (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
   (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 21886

 21/3,AB/5   (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00871024
DATA PROCESSING SYSTEM
SYSTEME DE TRAITEMENT DE DONNEES
Patent Applicant/Assignee:
   NEWSYMPHONY TECHNOLOGIES LIMITED, IFSC House, Custom House Quay, Dublin 1
   , IE, IE (Residence), IE (Nationality), (For all designated states
      except: US)
Patent Applicant/Inventor:
 ` SHERIDAN Cathal, Broadmeadow House, Upper Strand, Malahide, County Dublin
   , IE, IE (Residence), `IE (Nationality), (Designated only for: US)
Legal Representative:
   BOYCE Conor (agent), F.R. Kelly & Co., 27 Clyde Road, Ballsbridge, Dublin
      4, IE,
Patent and Priority Information (Country, Number, Date):
   Patent: WO 200205115 A2 20020117 (WO 0205115)
   Application: WO 2001IE74 20010601   (PCT/WO IE0100074)
   Priority Application: IE 2000553 20000707
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)

```
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
```
Publication Language: English
Filing Language: English
Fulltext Word Count: 13698

21/3,AB/6   (Item 6 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00867316
SYSTEM AND METHOD FOR PROVIDING PERSONALIZED RECOMMENDATIONS
SYSTEME ET PROCEDE DESTINES A FOURNIR DES RECOMMANDATIONS PERSONNALISEES
Patent Applicant/Assignee:
  QUARK INC, 1800 Grant Street, Denver, CO 80203, US, US (Residence), US
    (Nationality), (Designated only for: BB BR BZ CA CR CU GD LC MX)
  QUARK MEDIA HOUSE SARL, Puets-Godeet 6a, CH-2000 Neuchatel, CH, CH
    (Residence), CH (Nationality), (For all designated states except: BB BR
    BZ CA CR CU LC MX)
Inventor(s):
  GUTIERREZ Francisco, 1800 Grant Street, Denver, CO 80203, US,
Legal Representative:
  WEBB Glenn (agent), PO 951, Conifer, CO 80433, US,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200201419 A1 20020103 (WO 0201419)
  Application: WO 2001US20689 20010627 (PCT/WO US0120689)
  Priority Application: US 2000214871 20000628
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
```
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
TR TT TZ UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
```
Publication Language: English
Filing Language: English
Fulltext Word Count: 4581
English Abstract
  A system and method of providing **personalized recommendations**. The system
  defines objects, such a common areas of interests. These objects can be
  such areas of interest as movies, restaurants, clothes, geography,
  hobbies, sports, etc. Each object has a set of properties that define the
  objects. For example, a Movie object may have such properties as genre,
  director, actors, etc. Each object can then be grouped into a cluster
  based on commonality of properties of objects that are closely related by
  different users. For example, if a number of users have similar
  properties on a particular object, then other objects are examined as to

whether their properties are also similar. An example might be that if a
number of users have similar properties on a particular style of music,
then their preferences on movies, clothing, hobbies, etc. may also be
similar. If these conditions are met, then a "cluster" of those objects
and users is formed. Recommendations based on the choices and
recommendations from other users within a cluster may then be forwarded
to the user.

 21/3,AB/7   (Item 7 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00864403
**SYSTEM AND METHOD OF IDENTIFYING OPTIONS FOR EMPLOYMENT TRANSFERS ACROSS
 . DIFFERENT INDUSTRIES**
**SYSTEME ET PROCEDE D'IDENTIFICATION D'OPTIONS POUR TRANSFERTS D'EMPLOIS
 · ENTRE INDUSTRIES DIFFERENTES**
Patent Applicant/Inventor:
  PUTNAM Laura T, 32 Greeenkill Road, Bloomington, NY 12411, US, US
     (Residence), US (Nationality)
  SHAPIRO Eileen C, 987 Memorial Drive, Apt. 672, Cambridge, MA 02138, US,
     US (Residence), US (Nationality)
  MINTZ Steven J, 73 Fox Hedge Road, Saddle River, NJ 07458, US, US
     (Residence), US (Nationality)
Legal Representative:
  WOOD Keith J (et al) (agent), Bromberg & Sunstein LLP, 125 Summer Street,
     Boston, MA 02110, US,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200197145 A2 20011220 (WO 0197145)
  Application: · WO 2001US19352 20010615 (PCT/WO US0119352)
  Priority Application: US 2000211823 20000615; US 2000242043 20001020
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE
  ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
  LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
  TR TT TZ UA UG UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 14060

 21/3,AB/8   (Item 8 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00831820
CUSTOMIZED INTERACTION WITH COMPUTER NETWORK RESOURCES
INTERACTION PERSONNALISEE AVEC DES RESSOURCES D'UN RESEAU INFORMATIQUE
Patent Applicant/Inventor:
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     , GB (Nationality)
  HILTON Mark, 12 Ashleigh Road, West End, Leicester LE3 0FA, GB, GB
     (Residence), GB (Nationality), (Designated only for: US)

SHAH Irfan, 19 Luther Street, West End, Leicester LE3 0QH, GB, GB
    (Residence), GB (Nationality), (Designated only for: US)
LAST Benjamin James, 5 King Edward Close, Kingsmead, Northwich, Cheshire,
    GB, GB (Residence), GB (Nationality), (Designated only for: US)
Legal Representative:
  FINDLAY Alice Rosemary (agent), McNeight & Lawrence, Regent House, Heaton
    Lane, Stockport, Cheshire SK4 1BS, GB,
Patent and Priority Information (Country, Number, Date):
  Patent: WO 200165405 A1 20010907 (WO 0165405)
  Application: WO 2001GB877 20010301   (PCT/WO GB0100877)
  Priority Application: GB 20004993 20000301
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
  EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
  LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ
  TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 8134
English Abstract

A user describes himself or his interests by selecting at least one of a
predetermined set of profiles, which reflect **human characteristics**. The
selected profile(s) can be used when interacting over a communication
network (e.g. the Internet) (7) to facilitate being directed to
appropriate remote information or to appropriate other users. Information
about the activities of many users, such as information about Internet
usage, can be gathered by a central server (19) and collated to compile
statistical information in relation to their respective selected
profile(s).

```
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200455
File 347:JAPIO Nov 1976-2004/Apr(Updated 040802)
Set     Items   Description
S1        256   COLLABORATIVE()FILTER??? OR (RECOMMENDER OR RECOMMENDATION-
                  )()(SYSTEM? ? OR TECHNIQUE? ? OR ALGORITHM? ? OR METHOD?)
S2    1401874   ATTRIBUTE OR ATTRIBUTES OR PREFERENCE? ? OR VALUE OR VALUES
                  OR RATING? ?
S3      41674   PROBABILIT? OR PROBABILISTIC? OR LIKELIHOOD
S4       1158   PERSONALITY
S5      11077   BROWSER? ?
S6       7865   IC=G09B-019
S7          0   S1 AND S2 AND S3 AND S6
S8          6   S1 AND S2 AND S3
S9          0   S1 AND S6
S10     10000   S2 AND S3
S11         0   S S4 AND S10
S12         7   S4 AND S10
S13         7   S12 NOT S8
S14         7   S5 AND S10
S15         7   S14 NOT (S8 OR S12)
S16         0   S1 AND S3 AND S4
S17        13   S1 AND S3
S18         7   S17 NOT (S8 OR S12 OR S15)
S19         8   S6 AND S10
S20         6   S19 NOT (S8 OR S12 OR S15 OR S17)
```

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8/34/2    (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
014716183     **Image available**
WPI Acc No: 2002-536887/200257
```
Automated collaborative filtering **method of user data providing online
purchasing recommendation for user, involves recommending particular item
based on** probability **of baskets containing items**
Patent Assignee: WIZSOFT LTD (WIZS-N)
Inventor: MEIDAN A; OREN Z; RAVID H
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20020065797	A1	20020530	US 2000726046	A	20001130	200257	B

Priority Applications (No Type Date): US 2000726046 A 20001130
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020065797	A1		6	G06F-007/00	

Abstract (Basic): US 20020065797 A1
        NOVELTY - The **probability** P(A) of baskets containing an item 'A'
  out of all the baskets, and the **probability** P(A,B) of the basket
  containing items 'A' and 'B' out of all the baskets are determined. A
  rule is established to recommend item 'A' in case of having P(A,B) on
  P(A) greater than threshold **value**, when the basket contains only item B.
        USE - For performing automated **collaborative filtering** of user
  data for providing online purchasing recommendations to user.
        ADVANTAGE - Provides accurate real time purchase, information
  recommendations and alerts user in a fully automatic way without the
  need for prior **rating** by the user. Alerts in real time for the
  purpose of circumventing purchasing mistakes and theft.

DESCRIPTION OF DRAWING(S) - The figure shows the collaborated data filtering system.
pp; 6 DwgNo 1/1
Derwent Class: T01
International Patent Class (Main): G06F-007/00

8/34/3   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
014358579   **Image available**
WPI Acc No: 2002-179280/200223
Intelligent system for recommending media content items based on user
preferences **e.g. for network-based video recording system, uses expressed**
preferences **as inputs to filters and Bayesian predictive algorithms to rate**
TV programs
Patent Assignee: TIVO INC (TIVO-N); ALI K (ALIK-I); VAN STAM W (VSTA-I)
Inventor: ALI K; VAN STAM W
Number of Countries: 091 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200147273	A1	20010628	WO 2000US33877	A	20001214	200223	B
AU 200120992	A	20010703	AU 200120992	A	20001214	200223	
US 20020199186	A1	20021226	WO 2000US33877	A	20001214	200304	
			US 2002168808	A	20020621		

Priority Applications (No Type Date): US 99171829 P 19991221
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
WO 200147273 A1 E 44 H04N-007/173
   Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
   CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
   KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
   SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
AU 200120992 A   H04N-007/173 Based on patent WO 200147273
US 20020199186 A1   H04N-007/16
Abstract (Basic): WO 200147273 A1
   NOVELTY - Network-based video recording system rates television
   programs according to the likelihood that they will appeal to a user,
   based on the user's own previous **ratings** of television programming.
   Individual recording units, clients, are in intermittent communication
   with a server. A user interface is provided in which the user teaches
   the system by recording their programming **preferences** .
   DETAILED DESCRIPTION - Using an interactive **rating** system that
   employs a thumbs up and thumbs down metaphor for favorable and
   unfavorable **ratings** , respectively, individual users may give an
   overall **rating** to a program, or they may rate individual users may
   give an overall **rating** to a program, or they may rate individual
   features of the program: for example, directors, actors, and genres;
   provided in interactive lists. The users **preferences** are then used as
   inputs to one or more predictive algorithms.
   INDEPENDENT CLAIM is also included for the following:
   (a) method of predicting items
   USE - For network-based video recording system.
   ADVANTAGE - Predictive algorithms are adaptive improving in
   accuracy as more programs are rated. Predicts **rating** for an item

according to how much it will appeal to a user. Provides multiple
prediction engines that are capable of providing the most accurate
prediction for any particular item. Provide a convenient user interface
for teaching the system the user's **preferences** . Has adaptive
capability, so that it can learn and adapt to shifts in user
preferences . The distributed **collaborative   filtering** engine
guarantees a user's privacy by eliminating the necessity of correlating
the user to other user's or groups of users. Calculates similarity
between items, rather than between users and to perform such
calculation on the client side, eliminating the necessity of a stateful
connection between the server and the client. Provide an adaptive
modelling prediction engine that accepted both explicit user **ratings**
and had the capability of inferring user **ratings** in the absence of
explicit **ratings** . Displays the output of the various prediction
engines in a single, integrated list.

DESCRIPTION OF DRAWING(S) - The diagram shows the functional
architecture of a network based system for predicting the **likelihood**
that a an item of media content will appeal to a user based on previous
ratings of content items by the user

compute correlation (19)
rated items (15)
collaborative engine (17)
pp; 44 DwgNo 1/10
Derwent Class: T01; W04
International Patent Class (Main): H04N-007/16; H04N-007/173
International Patent Class (Additional): G06F-015/16; H04N-007/10;
H04N-007/25

8/34/4   . (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
013873330   **Image available**
WPI Acc No: 2001-357542/200138
**Collaborative   filtering   system**
Patent Assignee: XEROX CORP (XERO)
Inventor: DARDENNE M; GLANCE N S
Number of Countries: 026 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 1065616	A2	20010103	EP 2000305362	A	20000626	200138	B
US 6321179	B1	20011120	US 99343118	A	19990629	200174	

Priority Applications (No Type Date): US 99343118 A 19990629
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1065616	A2	E	11	G06F-017/60	

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI

US 6321179	B1		G06F-015/00	

Abstract (Basic): EP 1065616 A2
NOVELTY - System comprises memory (18) storing a set of correlation
coefficients which are measures of similarity in **ratings** between
pairs of users in the system who have rated a particular item.
Processor (12) calculates the predicted user **rating** which is the sum
of the product **rating** and its correlation coefficient divided by the
sum of the correlation coefficients, and calculates the variance of the
predicted user **rating** , which in turn is a function of the variance of

the correlation coefficients and the variance of the **ratings** . The processor also ranks and presents items to the user by estimating the distribution of the prediction **rating** from empirically determined usage data using the observed distribution and the **probability** distribution w.r.t. a user set threshold **value** .

USE - System is for predicting a users level of interest in information on the WWW or Internet.

ADVANTAGE - System can accommodate different levels of accuracy for different users to save processing time.

DESCRIPTION OF DRAWING(S) - The figure shows the **collaborative filter** system.

pp; 11 DwgNo 1/2

Derwent Class: T01
International Patent Class (Main): G06F-015/00; G06F-017/60
International Patent Class (Additional): G06F-017/30; H03F-001/26; H04B-015/00

8/7/6   (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.
07739720   **Image available**
CONTENT **RECOMMENDATION SYSTEM**, CONTENT RECOMMENDATION DEVICE, CONTENT **RECOMMENDATION METHOD**, PROGRAM THEREFOR, AND PROGRAM STORAGE MEDIUM THEREFOR
PUB. NO.:   2003-233622   [JP 2003233622 A]
PUBLISHED: August 22, 2003 (20030822)
INVENTOR(s):   NAITO EIICHI
               OZAWA JUN
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD
APPL. NO.:   2002-034940   [JP 200234940]
FILED: February 13, 2002 (20020213)
                              ABSTRACT
PROBLEM TO BE SOLVED: To provide a means that recommends contents with a light load on arithmetic processing and in accordance with the **probability** of deviation of a user's taste.
SOLUTION: Consideration levels are added to **attributes** of a database and to **attribute   values** . The consideration levels are set by stereotype selection and questionnaire input. From **probability** based on the consideration levels, recommended contents are selected. The consideration levels are updated based on a user evaluation of the recommended contents.
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13/34/4   (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
014139886   **Image available**
WPI Acc No: 2001-624097/200172
  Computer user interface for use with hand held devices, has Bayesian agent network model to which data about desired emotion and personality states to be conveyed by agent is dictated by policy module
Patent Assignee: MICROSOFT CORP (MICT)
Inventor: BALL J E; BREESE J S
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6212502	B1	20010403	US 9847160	A	19980323	200172 B
			US 98109232	A	19980630	

Priority Applications (No Type Date): US 9847160 A 19980323; US 98109232 A
   19980630
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
US 6212502   B1   26 G10L-011/00   Div ex application US 9847160
                                       Div ex patent US 6185534
Abstract (Basic): US 6212502 B1
       NOVELTY - Policy module (620) dictates data about desired emotion
   and **personality** states to be conveyed by agent, to. Bayesian agent
   network model (640) facilitating **probabilistic** inferencing of agent
   behavior. Model (640) has one layer of multi-state nodes representing
   emotional and **personality** variables and having inputs coupled to
   module (620). Another layer of multi-state nodes represents behavioral
   variables.
       DETAILED DESCRIPTION - The agent is capable of conveying emotion
   and **personality** by exhibiting corresponding behavior to user. The
   behavior variables comprise at least one of speech **attribute** node,
   facial expression node and word **attribute** node. An INDEPENDENT CLAIM
   is also included for user interface operating method.
       USE - For use with hand held devices, multiprocessor system,
   microprocessor-based or programmable consumer electronics, network PC,
   minicomputer, mainframe computer, in distributed computing environment,
   for speech recognition.
       ADVANTAGE - Integrates information from a variety of observable
   linguistic and non-linguistic behavior, by using Bayesian network.
       DESCRIPTION OF DRAWING(S) - The figure shows the system
   architecture of user interface.
       Policy module (620)
       Bayesian agent network model (640)
       pp; 26 DwgNo 6/17
Derwent Class: P86; T01; W04
International Patent Class (Main): G10L-011/00

 15/34/1   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
015738255   **Image available**
WPI Acc No: 2003-800456/200375
*Product predicting method for electronic shopping aid, involves determining
greatest likelihood product by evaluating probability distribution of
preference node, and expected value of information for unspecified attribute
node*
Patent Assignee: MICROSOFT CORP (MICT)
Inventor: FAYAD U M; HECKERMAN D E; MEEK C A
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No   Kind   Date   Applicat No   Kind   Date   Week
US 6633852   B1 20031014 US 99316704   A   19990521 200375 B
Priority Applications (No Type Date): US 99316704 A 19990521
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
US 6633852   B1   30 G06F-017/60
Abstract (Basic): US 6633852 B1 '
       NOVELTY - The method involves receiving request containing a **value**
   of **attribute** nodes to determine an available product of greatest
   likelihood . The product is determined by evaluating **probability**

distributions of **preference** nodes. An expected **value** of information for each of unspecified **attribute** nodes is determined by accessing a belief network and unspecified **attribute** nodes are ranked based on the information.

DETAILED DESCRIPTION - The belief network is received with **attribute** nodes reflecting **attributes** of products and the **preference** nodes reflecting available products. The networks are accessed to determine how much a **value** for the unspecified **attribute** node influences the available products having the greatest **likelihood** of being the desired product.

INDEPENDENT CLAIMS are also included for the following:

(1) an electronic shopping aid

(2) a computer readable medium.

USE - Used in electronic shopping aids for predicting desired products.

ADVANTAGE - The method allows a user to help the **browser** to accurately determine the product by specifying a like or dislike for one or more products.

DESCRIPTION OF DRAWING(S) - The drawing shows a flowchart of the steps performed by the **preference** -based **browser** .

pp; 30 DwgNo 14/14

Derwent Class: T01
International Patent Class (Main): G06F-017/60

15/34/3   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004   Thomson Derwent. All rts. reserv.
014362277   **Image available**
WPI Acc No: 2002-182978/200224
  Goods selling promotion system for online shopping using internet, monitors the selection and purchasing conditions to collect individual user information and preference **information**
Patent Assignee: NEC CORP (NIDE)
Number of Countries: 001   Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2002015199	A	20020118	JP 2000198056	A	20000630	200224	B

Priority Applications (No Type Date): JP 2000198056 A 20000630
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2002015199	A		17	G06F-017/60	

Abstract (Basic): JP 2002015199 A

NOVELTY - A server (3) has a processor (31) which produces a homepage indicating selling promotion date. A **browser** (11) in a user terminal (1a) accesses the homepage to select and purchase the goods. A monitor (33) in server, monitors selection and purchasing conditions to collect individual user information and **preference** information.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Selling promotion method;

(b) Server

USE - For online shopping using internet.

ADVANTAGE - Purchase **probability** is enhanced and stimulated, by displaying detailed purchase reports and applications.

DESCRIPTION OF DRAWING(S) - The figure shows a functional block diagram of goods selling promotion system. (Drawing includes

        non-English language text).
            User terminal (1a)
            Server (3).
             Browser (11)
            Processor (31)
            Monitor (33)
            pp; 17 DwgNo 2/25
Derwent Class: T01
International Patent Class (Main): G06F-017/60
International Patent Class (Additional): G06F-017/30

   18/34/1   **(Item 1 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
016284091
WPI Acc No: 2004-441986/200442
   Option-goods recommending system and method
Patent Assignee: BAOLAI SECURITES CO. LTD (BAOL-N)
Inventor: DUAN W; TAO H; YANG D
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
CN 1489096	A	20040414	CN 2002147602	A	20021007	200442	B

Priority Applications (No Type Date): CN 2002147602 A 20021007
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CN 1489096	A			G06F-017/60	

Abstract (Basic): CN 1489096 A
        NOVELTY - The **recommendation   system** comprises a network
    interface, a processor and a choice right dealing platform. The network
    interface is utilized to receive investment target and opinion of game
    trend. Based on investment target and opinion of game trend received
    from network interface, the processor selects multiple candidate choice
    commodities from the choice right dealing platform. Based on rate of
    return under fixed **probability** of winning a prize, the candidate
    choice commodity with highest rate of return selected from the multiple
    candidate choice commodities is as the recommended
    choice-rightcommodity under the **probability** of winning a prize.
        DwgNo 0/0
Derwent Class: T01
International Patent Class (Main): G06F-017/60

   18/34/5   **(Item 5 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
015227480   **Image available**
WPI Acc No: 2003-288393/200328
   **Maximum utility object determination system e.g. books, predicts set of
   maximal utility objects from sorted set of objects using** probabilistic
   model and known object information of particular entity
Patent Assignee: CHICKERING D M (CHIC-I); HECKERMAN D E (HECK-I);
   ROUNTHWAITE R (ROUN-I)
Inventor: CHICKERING D M; HECKERMAN D E; ROUNTHWAITE R
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week

US 20020184139 A1 20021205 US 2001681742   A   20010530 200328 B
Priority Applications (No Type Date): US 2001681742 A 20010530
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
US 20020184139 A1   13 G06F-017/60
Abstract (Basic): US 20020184139 A1
        NOVELTY - The system predicts a set of maximal utility objects from
    a sorted set of objects using **probabilistic** model and known object
    information of the particular entity. The entities associated with each
    object are examined until the set of maximal utility objects is full
    and lowest utility object in set of maximal utility objects is greater
    than the upper bound of utility of next sorted objects in set of
    objects.
        DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the
    following:
        (1) computer readable medium storing program for dynamically
    extracting highest **probability** object; and
        (2) method for determining highest **probability** recommendation.
        USE - For extracting top recommendations of set of possible object
    such as particular choices, topics, items, products, books, movies,
    foodstuff, drinks, etc.
        ADVANTAGE - Automatically determines a set of most highly
    probabilistic recommendation without determining **probabilities** for
    each possible objects for which the recommendation is being made.
        DESCRIPTION OF DRAWING(S) - The figure shows an explanatory system
    diagram showing program modules employed for determining highest
    probability recommendation from local **probabilistic   recommendation
    system** .
        pp; 13 DwgNo 2/3
Derwent Class: T01
International Patent Class (Main): G06F-017/60

 18/34/6   (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
014470905
WPI Acc No: 2002-291608/200233
  Adaptive television program recommendation   system **for recommending
  television programs to a viewer based on their past viewing history**
Patent Assignee: KONINK PHILIPS ELECTRONICS NV (PHIG)
Inventor: SCHAFFER J D
Number of Countries: 028 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200158145	A2	20010809	WO 2001EP816	A	20010125	200233	B
EP 1192802	A2	20020403	EP 2001909693	A	20010125	200233	
			WO 2001EP816	A	20010125		
KR 2001105404	A	20011128	KR 2001712654	A	20011004	200233	
JP 2004508740	W	20040318	JP 2001557277	A	20010125	200420	
			WO 2001EP816	A	20010125		

Priority Applications (No Type Date): US 2000498271 A 20000204
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
WO 200158145 A2 E 20 H04N-005/00
   Designated States (National): JP KR
   Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

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   MC NL PT SE TR
EP 1192802   A2 E    H04N-005/00   Based on patent WO 200158145
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI TR
KR 2001105404 A       H04N-005/44
JP 2004508740 W    43 H04N-017/00   Based on patent WO 200158145
Abstract (Basic): WO 200158145 A2
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NOVELTY - Uses **probabilistic** calculations e.g. applies Bayesian classifier theory and a viewer profile to create a **recommendation**. Modifications to classical Bayesian classifier theory are proposed. System is realized as computer processor coupled to a display.

USE - For recommending television programs to a viewer based on their past viewing history.

ADVANTAGE - Improved accuracy of recommendation.

pp; 20 DwgNo 0/5

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Derwent Class: W02; W03
International Patent Class (Main): H04N-005/00; H04N-005/44; H04N-017/00
International Patent Class (Additional): H04N-005/445
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